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Report: AQRB-82-009-T

RESULTS OF THE CANADIAN AIR AND PRECIPITATION
MONITORING NETWORK APN:
JULY 1980 TO DECEMBER 1981

BY

L.A. Barrie, H.A. Wiebe
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December 1982

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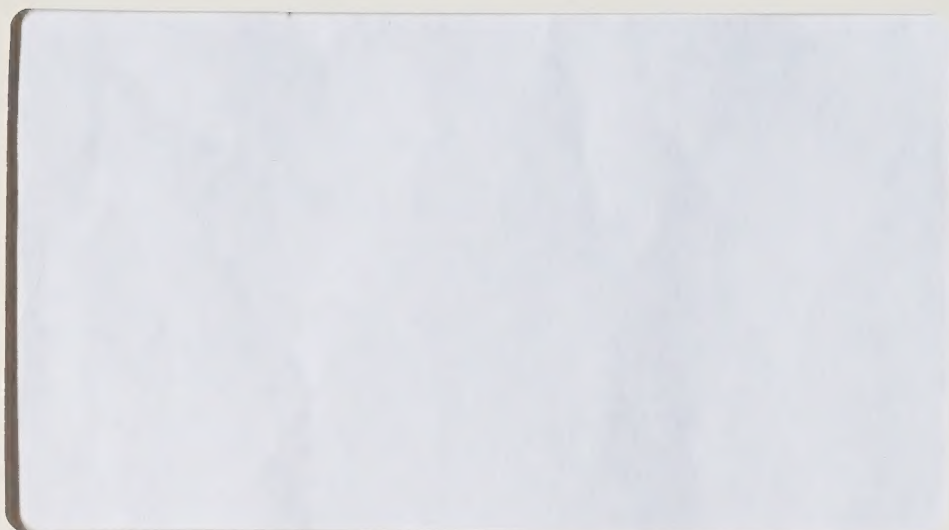


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The views expressed in this document reflect the opinion of the individual contributors and do not necessarily represent the official position of the Atmospheric Environment Service.

Air Quality and Inter-Environmental Research Branch, Atmospheric Environment Service, 4905 Dufferin Street, Downsview, Ontario, Canada M3H 5T4.

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INTRODUCTION

The air and precipitation monitoring network (APN), in operation since November 1978, has been used to obtain information on the quality of air and precipitation on a daily basis at regionally representative locations in Canada (Figure 1). Several APN sites (ELA-Kenora, Algoma, Montmorency Forest, and Kejimikujik) are situated in designated 'calibrated watersheds' of the federal acid rain research program to provide information on atmospheric inputs of acid-related substances, as well as information on the origin of pollutants reaching the watershed. Covering the period July 1980 to December 1981, this report presents the results from six sites which are still in operation today. For a detailed description of network operations and results, the reader is referred to two previous reports by Barrie et al (1980 and 1981).

STATUS OF THE NETWORK

Operational periods for sampling of air and precipitation at each site are summarized in Table 1. Of all the stations, ELA-Kenora and Chalk River has been in operation the longest (since November 1978). Air Sampling was terminated at Long Point on 30 November 1982 in favor of a new site at Longwoods Conservation area near London, Ontario. Precipitation sampling will continue at Long Point. Earlier in 1982, two new sites were added to the network:

- (1) Baie D'Espoir on the south coast of Newfoundland
- (2) Cree Lake in the centre of Northern Saskatchewan

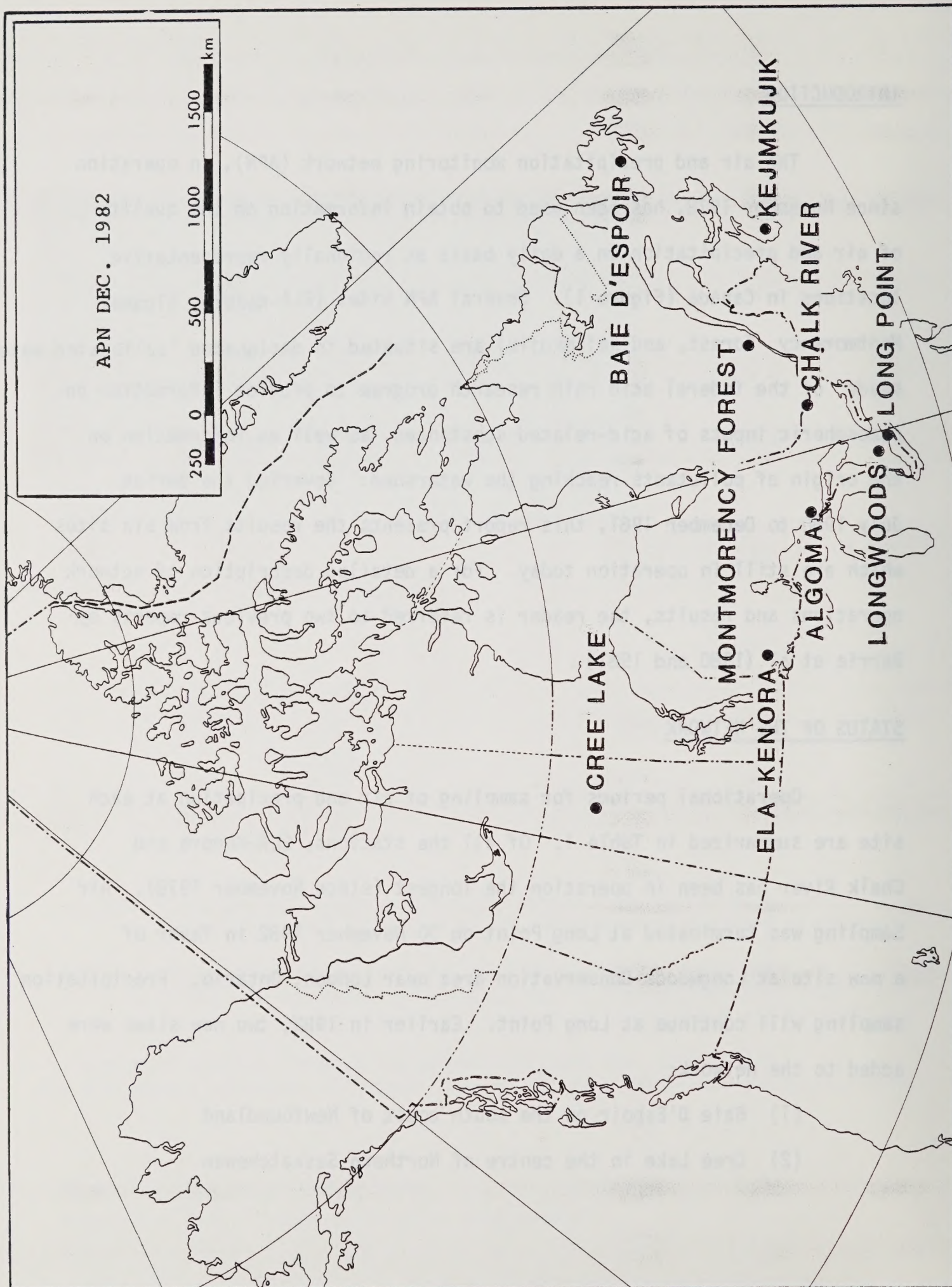


FIGURE 1: Location of APN monitoring sites

Site coordinates and site authorities are summarized in Table 2. The Newfoundland site provides information on air and precipitation quality at a location in the downwind plume of eastern North American pollutant emissions. The Cree Lake site is strategically located in an acid-sensitive region downwind of the Athabasca Oil Sands region. It will provide valuable baseline information prior to the expected developments of these oil deposits in Northern Alberta.

The network operations are presently being integrated into the Canadian Air and Precipitation Monitoring Network (CAPMON) administered by the Air Quality Monitoring and Assessment Division of the Atmospheric Environment Service (M. Still, Network Manager). APN will become part of CAPMON on April 1, 1983.

RESULTS

The daily average concentration of particulate major ions and gaseous sulphur dioxide in air as well as the concentrations of major ions in daily precipitation samples are tabulated in Appendices 1 to 6. A statistical summary accompanies each monthly tabulation. It should be noted by the reader that nitrate air concentrations reported here are total nitrate comprised of both particulate nitrates and gaseous nitric acid.

The results of two recent studies are pertinent to the use of these data for environmental applications:

1. a study of the collection efficiency of gaseous nitric acid and sulfur dioxide by filter media used in APN (Brice et al, 1982) has shown that there is total capture of the gases by Whatman 40 filters at air temperatures down to -20°C .

TABLE 2

LOCATION, SITE OPERATING AUTHORITY AND STARTING DATE OF SAMPLING
PERIOD FOR APN SITES (Site Locations Fig. 1)

SITE	LOCATION		SAMPLING BEGAN		SITE OPERATION & AUTHORITY
	LAT. (N)	LONG. (W)	PRECIP.	AIR	
Experimental Lakes Area	49.7°	93.9°	1978-11-15	1978-11-15	Canadian Fresh Water Institute Dr. D. Schindler
Chalk River	46.1°	77.4°	1978-11-1	1978-11-1	Atomic Energy of Canada Ltd. Dr. P. Barry
Long Point	42.6°	80.5°	1978-11-6	1979-3-12 Terminated 30.11.82	Canadian Wildlife Service Mr. P. Madore
Kejimikujik National Park	44.4°	65.2°	1979-5-11	1979-5-11	Canadian Wildlife Service Dr. J. Kerekes
Toronto CN Tower	43.7°	79.4°	-	Terminated 1980-8-19	Atmospheric Environment Service Dr. K. Anlauf
Algoma	47.1°	84.1°	1978-9-29	1978-9-29	Canada Centre for Inland Waters Mr. R. Semkin
Montmorency Forest	47.3°	71.2°	1980-12-4	1980-12-4	Canadian Forestry Service Dr. G. Robitaille
Baie D'Espoir	47°58'N	55° 50'W	1981-11-24	1981-11-24	Newfoundland and Labrador Hydro Dr. L. Hulett
Cree Lake	56°46'	107° 47'W	1982-7-28	1982-7-28	Atmospheric Environment Service Downsview, Ont. Mr. M. Still
London	42°53'N	82 25'W	1982-12-1	1982-11-4	Ontario Ministry of Natural Resources Mr. M. Still Mr. P.W. Chan

2. a recent intercomparison between APN sampling methodologies with those of the Ontario Ministry of Environment (OME) and Ontario Hydro yielded the following conclusions:

- i) on average, there is good agreement between particulate sulphate and gaseous sulphur dioxide measurements made by AES and OME.
- ii) in general, AES total nitrate air concentrations measured using Whatman 40 cellulose filter are 20-30% lower than those of OME measured using a combination teflon-nylon filter.
- iii) there is good agreement between measurements of the concentration of major ions in precipitation by all three agencies.

There has been an analysis of APN data recently published (Barrie et al, 1983) that discusses the origin of air and precipitation pollutants at APN sites as well as the wet and dry deposition of sulphates at ELA-Kenora, Chalk River, Long Point and Kejimikujik.

SUMMARY

Measurement of the concentrations of acid-related substances in acid-related substances in air and precipitation on a routine basis are continuing in an expanded network of seven stations covering most areas in Canada impacted by acidic pollutants. The observations provide valuable information for calculations on the rate of deposition of pollutants to watersheds and for comparisons with acid-rain model predictions. This

report presents data collected over an eighteen month period (July 1980 - December 1981). A detailed analysis and interpretation of the data will be undertaken and reported separately.

ACKNOWLEDGEMENTS

We are indebted to: Mr. J. Kovalick for his valuable assistance in processing the data as well as in the installation and maintenance of sites; Mr. B. Martin for coordinating the network's routine operations and installation of new sites and to all those site operators that ensure that high quality samples are collected routinely. These include Mr. Jerry Wells, Newfoundland and Labrador Hydro; Mr. Floyd Luxton; Dr. Gilles Robitaille and staff, Canadian Forestry Research Centre; Mr. D.P. Wildsmith, Atomic Energy of Canada Ltd.; Mr. Ray Semkin and Mr. Barney Barnet, C.C.I.W.; Mr. Ken Beatty, Dept. of Fisheries and Oceans; Mr. and Mrs. Doug Brown, Canadian Wildlife Service.

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APPENDIX 1

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS IN AIR AND PRECIPITATION AT ELA KENORA

ELA-KENORA

JULY 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
6	-	-	-	-	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	-	-	-	-	-	-
28	-	-	-	-	-	-
29	-	-	-	-	-	-
30	-	-	-	-	-	-
31	-	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} g l^{-1})

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE	TYPE
13	6.6	7.1	4.90	6.40	2.1	2.789	.1	1.09	.898	.21	.15	.20	.083	1.28	1
14	2.0	.5	-	-	5.9	-	2.8	1.59	-	.26	8.80	.50	-	-	1
15	33.0	34.2	-	5.30	bd1	.226	.1	.22	.058	.03	.15	.13	.006	-	1
17	1.3	.8	5.09	-	.6	-	.6	.51	-	.08	.51	.67	-	-	1
18	7.8	5.2	-	6.50	.8	.952	.2	.65	.424	.17	.21	.69	.032	1.80	1
20	18.6	18.7	4.70	5.00	.5	.235	bd1	.21	.006	.03	.07	.21	.009	-	1
26	3.7	2.8	-	6.70	2.4	2.877	.1	1.63	.931	.40	.11	.04	.055	1.37	1
27	7.1	7.5	6.03	6.60	1.0	.571	.1	.32	.237	.07	.09	1.04	.148	1.21	1
28	2.4	.8	-	-	2.0	-	.5	.79	-	.21	1.72	.23	-	-	1
29	2.0	1.6	-	5.10	2.2	2.479	.3	.67	1.074	.13	.13	.20	-	1.28	1
TOTAL PRECIP					84.5	79.2									
NO. OBS.					10	10									
A. MEAN					8.5	7.9									
STD. DEV.					10.0	10.7									
MINIMUM					1.3	.5									
MAXIMUM					33.0	34.2									
P.W. MEAN															
PRECIP TYPE															
1 - RAIN															
2 - SNOW															
3 - MIXED															
4 - UNCERTAIN															

T - TRACE AMOUNT

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1 IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

AUGUST 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ²⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	.63	.23	bd1	bd1	bd1	bd1
5	bd1	bd1	bd1	bd1	bd1	bd1
6	1.72	.20	bd1	.10	.83	.6
7	1.44	.24	bd1	bd1	.78	.5
8	.28	bd1	bd1	bd1	bd1	.7
9	.63	.17	bd1	bd1	bd1	.6
10	.94	.12	bd1	bd1	bd1	.9
11	.70	bd1	bd1	bd1	bd1	bd1
12	.96	.21	bd1	bd1	bd1	bd1
13	.36	bd1	bd1	bd1	bd1	bd1
14	.22	bd1	bd1	bd1	bd1	bd1
15	.72	.12	bd1	bd1	bd1	bd1
16	bd1	bd1	bd1	bd1	bd1	bd1
17	.36	bd1	bd1	bd1	bd1	bd1
18	.88	.47	.32	.30	.70	bd1
19	.50	.27	bd1	.17	bd1	.7
20	2.69	.59	bd1	bd1	1.13	1.0
21	.85	.18	bd1	bd1	.51	bd1
22	.61	.18	bd1	bd1	bd1	bd1
23	.69	.28	bd1	bd1	bd1	1.5
24	7.43	1.93	bd1	bd1	2.97	1.8
25	1.96	.64	bd1	bd1	.93	bd1
26	bd1	bd1	bd1	bd1	bd1	bd1
27	.39	.10	bd1	bd1	bd1	bd1
28	2.81	.40	bd1	bd1	1.24	.7
29	2.20	.65	bd1	bd1	.72	bd1
30	1.45	.12	bd1	bd1	.86	1.2
31	1.33	.29	bd1	bd1	.97	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	-	-	-	-
A. MEAN	1.17	.26	-	-	-	-
S.D.	1.44	.38	-	-	-	-
MIN.	bd1	bd1	-	-	-	-
MAX.	7.43	1.93	-	-	-	-

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} g l^{-1})

DAY	AMOUNT		pH		SO ₄ ²⁻	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE	TYPE
3	25.6	25.2	4.95	5.60	1.2	1.018	.2	.52	.538	.07	.05	.07	.013	1.42	1
4	9.0	7.5	6.00	6.50	1.0	.487	.3	.44	.234	.07	.97	.12	.236	1.61	1
5	1.8	1.3	-	5.50	.4	.531	.2	.30	.152	.06	.11	.23	-	1.66	1
6	1.8	.9	-	4.20	1.7	-	.4	.70	-	.11	.30	.31	-	-	1
7	5.6	6.2	-	4.80	.7	.487	.1	.20	.155	.03	.06	.05	.009	1.58	1
10	1.2	1.2	-	4.60	1.7	1.062	.5	.42	.428	.07	.31	.33	-	1.43	1
11	4.9	5.4	-	5.70	.3	.221	.1	.11	.176	.01	.08	.05	.010	1.37	1
12	9.6	9.6	5.73	6.30	.5	.354	.1	.12	.596	.02	.06	.07	.017	1.49	1
16	16.3	14.3	-	5.10	.4	.221	.2	.09	.036	.01	.17	.05	.017	1.31	1
17	5.7	2.8	-	5.20	.6	.620	.6	.23	.274	.03	.34	.33	.024	1.45	1
20	4.6	4.0	-	5.00	.8	.753	.1	.18	.372	.02	.11	.08	.005	1.43	1
21	2.7	1.8	-	5.20	.5	.354	.2	.19	.256	.03	.19	.09	-	1.88	1
22	2.6	2.2	-	4.70	.7	.930	.1	.24	.305	.03	.07	.06	-	1.76	1
29	6.4	5.5	-	4.80	1.4	1.904	.2	.40	.639	.06	.12	.16	.003	1.29	1
30	3.5	2.9	-	4.60	.3	bd1	.1	.17	.006	.02	.06	.05	.004	-	1

TOTAL PRECIP. 101.3 90.8

NO. OBS.	15	15	-	15	15	14	15	15	14	15	15	15	-	13
A. MEAN	6.8	6.1	-	4.87	.8	.639	.2	.29	.298	.04	.20	.14	-	1.51
STD. DEV.	6.5	6.4	-	4.79	.5	.480	.2	.17	.197	.03	.23	.11	-	1.18
MINIMUM	1.2	.9	-	4.20	.3	bd1	.1	.09	.006	.01	.05	.05	-	1.29
MAXIMUM	25.6	25.2	-	6.50	1.7	1.904	.6	.70	.639	.11	.97	.33	-	1.88
P.W. MEAN	-	-	-	5.11	.8	.664	.2	.30	.337	.04	.19	.10	-	-

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

SEPTEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ²⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.01	.27	bd1	bd1	.79	.6
2	1.23	.52	bd1	bd1	.86	1.1
3	1.27	.43	bd1	bd1	.67	bd1
4	1.63	.15	bd1	bd1	.68	bd1
5	.35	.15	bd1	bd1	bd1	bd1
6	1.23	.78	bd1	bd1	.75	.6
7	1.84	.75	bd1	bd1	.91	1.5
8	2.48	.46	bd1	bd1	1.04	2.5
9	.51	bd1	bd1	bd1	bd1	.5
10	.65	.28	bd1	bd1	.41	.9
11	.86	.12	bd1	bd1	bd1	1.7
12	.50	.15	bd1	bd1	bd1	1.0
13	.27	bd1	bd1	bd1	bd1	1.6
14	.76	.11	bd1	bd1	bd1	.5
15	1.49	.25	bd1	bd1	.68	bd1
16	.30	bd1	.24	bd1	bd1	bd1
17	bd1	bd1	bd1	bd1	bd1	bd1
18	.32	bd1	bd1	bd1	bd1	bd1
19	bd1	bd1	bd1	bd1	bd1	bd1
20	.22	bd1	bd1	bd1	bd1	bd1
21	.73	.16	bd1	bd1	bd1	bd1
22	bd1	bd1	bd1	bd1	bd1	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	-	-	-	-	-	-
28	-	-	-	-	-	-
29	1.49	.37	bd1	bd1	.70	-
30	1.58	.33	bd1	bd1	.62	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	24	24	-	-	24	-
A. MEAN	.86	.22	-	-	.34	-
S.D.	.66	.23	-	-	.39	-
MIN.	bd1	bd1	-	-	bd1	-
MAX.	2.48	.78	-	-	1.04	-

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} g l^{-1})

														ION BAL.		
AMOUNT				pH										RATIO		PRECIP
DAY	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE	
3	8.6	8.5	5.03	5.00	1.4	1.372	.2	.39	.613	.05	.16	.14	.005	1.35	1	
4	7.1	6.5	-	5.20	bd1	bd1	bd1	.12	.021	.02	.01	.04	bd1	-	1	
8	23.4	24.4	5.00	4.70	.8	.575	.1	.18	.139	.02	.03	.02	.004	1.42	1	
12	1.1	1.0	-	-	3.7	-	1.9	-	-	-	-	-	-	-	1	
15	4.0	2.5	-	5.00	2.6	1.372	.1	1.91	1.185	.27	.13	.19	.026	2.53	1	
17	4.6	4.2	-	4.90	.7	.266	.1	.20	.126	.03	.08	.07	.006	1.80	1	
18	1.2	1.0	-	3.40	.8	-	.3	-	-	-	.13	.13	-	-	1	
19	10.0	6.0	-	5.10	.5	.310	.1	.13	.122	.01	.05	.04	.006	1.40	1	
21	3.6	3.6	-	5.70	1.1	.664	.9	.45	.295	.05	.18	.14	.011	.92	1	
22	3.1	2.6	-	5.30	.7	.044	.6	.25	.042	.04	.26	.17	.021	1.22	1	
23	2.0	2.0	-	5.00	1.0	.620	.3	.36	.183	.06	.23	.19	.006	1.49	1	
24	2.6	2.3	-	5.40	.4	bd1	.3	.25	bd1	.04	.20	.09	.007	-	1	
29	2.4	2.0	-	5.20	1.3	.974	.3	.60	.003	.09	.20	.09	-	1.04	1	
30	3.4	3.9	-	5.30	2.0	.930	.2	.61	.566	.12	.17	.13	.004	1.38	1	
TOTAL PRECIP					77.1	70.5										
NO. OBS.	14	14	-	13	14	12	14	12	12	12	13	13	11	-		
A. MEAN	5.5	5.0	-	4.42	1.2	.594	.4	.45	.276	.07	.14	.11	.009	-		
STD. DEV.	5.8	6.0	-	3.97	1.0	.493	.5	.49	.354	.07	.08	.06	.008	-		
MINIMUM	1.1	1.0	-	3.40	bd1	bd1	bd1	.12	bd1	.01	.01	.02	bd1	-		
MAXIMUM	23.4	24.4	-	5.70	3.7	1.372	1.9	1.91	1.185	.27	.26	.19	.026	-		
P.W. MEAN			-	4.75	1.0	.593	.2	.34	.251	.05	.09	.08	.007			

PRECIP TYPE T - TRACE AMOUNT
 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
 IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

OCTOBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	.38	bd1	bd1	bd1	bd1	-
2	bd1	bd1	bd1	bd1	bd1	-
3	.39	.14	bd1	bd1	bd1	-
4	.82	.37	bd1	bd1	.47	-
5	1.30	1.35	bd1	bd1	.96	-
6	.27	.17	bd1	bd1	.43	-
7	.77	.31	bd1	bd1	.59	-
8	.26	bd1	bd1	bd1	bd1	-
9	.74	.19	bd1	.15	bd1	-
10	bd1	bd1	bd1	bd1	bd1	-
11	.26	bd1	bd1	bd1	bd1	-
12	.84	bd1	bd1	bd1	bd1	-
13	.40	bd1	bd1	bd1	bd1	-
14	.65	bd1	bd1	bd1	bd1	-
15	4.27	.93	bd1	bd1	1.28	-
16	3.07	.57	bd1	bd1	1.08	-
17	.58	.10	bd1	bd1	bd1	-
18	.57	.10	bd1	bd1	.43	-
19	1.51	bd1	bd1	bd1	.49	-
20	1.20	bd1	bd1	bd1	bd1	-
21	.26	bd1	bd1	bd1	bd1	-
22	.45	bd1	bd1	bd1	bd1	-
23	bd1	bd1	bd1	bd1	bd1	-
24	.31	bd1	bd1	bd1	bd1	-
25	.53	bd1	bd1	bd1	bd1	-
26	1.07	bd1	bd1	bd1	bd1	-
27	.50	bd1	bd1	bd1	bd1	.6
28	.49	bd1	bd1	bd1	bd1	bd1
29	1.94	1.36	bd1	bd1	1.18	.6
30	.54	.23	bd1	bd1	.43	.7
31	bd1	bd1	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	-	-	-	-	-
A. MEAN	.79	-	-	-	-	-
S.D.	.90	-	-	-	-	-
MIN.	bd1	-	-	-	-	-
MAX.	4.27	-	-	-	-	-

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH		SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE		
1	2.8	1.3	-	5.40	.8	bd1	.2	-	.004	-	.17	.10	-	-	-	1
9	3.8	3.6	-	7.30	1.9	.974	.1	.86	.403	.17	.61	.18	.026	.67	-	1
10	5.0	4.2	-	5.60	bd1	.177	bd1	.16	.072	.02	.30	.06	.004	-	-	1
16	12.8	12.1	4.63	4.90	1.2	.797	bd1	.25	.277	.03	.08	.07	.003	-	-	1
17	18.9	12.4	5.02	5.30	.7	.531	.2	.14	.250	.01	.21	.14	.005	1.30	-	1
20	2.0	1.7	-	5.10	2.1	.708	.1	.24	.424	.03	.39	.12	-	1.10	-	1
22	5.4	3.9	-	4.60	1.9	4.471	.1	.46	1.220	.05	.10	.11	.002	1.10	-	2
23	7.8	7.2	4.66	4.80	.5	1.062	.2	.14	.144	.01	.10	.10	.002	1.12	-	2
24	1.4	.3	-	-	-	-	-	-	-	-	.96	.86	-	-	-	2
TOTAL PRECIP 59.9 46.7																
NO. OBS.	9	9	-	8	8	8	8	7	8	7	9	9	-	-	-	
A. MEAN	6.7	5.2	-	5.04	1.1	1.090	.1	.32	.349	.05	.32	.19	-	-	-	
STD. DEV.	5.8	4.5	-	5.08	.8	1.415	.1	.27	.382	.06	.29	.25	-	-	-	
MINIMUM	1.4	.3	-	4.60	bd1	bd1	bd1	.14	.004	.01	.08	.06	-	-	-	
MAXIMUM	18.9	12.4	-	7.30	2.1	4.471	.2	.88	1.220	.17	.96	.86	-	-	-	
P.W. MEAN			-	5.02	1.0	1.003	.1	.25	.320	.03	.21	.13	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

NOVEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SC_2
1	.61	bd1	bd1	bd1	bd1	.8
2	1.04	2.32	bd1	bd1	1.19	1.9
3	1.03	.72	bd1	bd1	.42	.8
4	.53	bd1	bd1	bd1	bd1	.7
5	.76	.76	bd1	.11	bd1	.9
6	.88	.48	bd1	bd1	bd1	bd1
7	.61	bd1	bd1	bd1	bd1	bd1
8	.66	bd1	bd1	bd1	bd1	bd1
9	.50	bd1	bd1	.09	bd1	bd1
10	.62	.19	bd1	.19	bd1	bd1
11	.84	.58	bd1	.11	bd1	1.4
12	1.98	1.23	bd1	bd1	.44	1.6
13	1.48	.13	bd1	bd1	bd1	bd1
14	2.39	.85	bd1	bd1	.78	.7
15	2.07	2.19	bd1	bd1	1.02	.6
16	1.52	.11	bd1	bd1	bd1	1.2
17	1.04	.24	bd1	bd1	bd1	.6
18	1.25	1.20	bd1	bd1	.53	.6
19	.80	1.19	bd1	bd1	bd1	.8
20	.76	.24	bd1	bd1	bd1	.8
21	.56	.83	bd1	bd1	bd1	1.0
22	1.39	.46	bd1	bd1	bd1	2.5
23	1.38	.11	bd1	.19	bd1	1.8
24	1.06	1.07	bd1	bd1	.59	1.0
25	1.74	.84	bd1	bd1	.66	.6
26	1.43	1.26	bd1	bd1	.64	1.4
27	1.15	1.68	bd1	.12	.85	.6
28	bd1	bd1	bd1	bd1	bd1	.7
29	.69	.57	bd1	bd1	bd1	.9
30	.44	.17	.23	.18	bd1	1.7

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	-	30
A. MEAN	1.04	.65	-	-	-	.9
S.D.	.54	.64	-	-	-	.6
MIN.	bd1	bd1	-	-	-	bd1
MAX.	2.39	2.32	-	-	-	2.5

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-5} g l^{-1})

DAY	AMOUNT		pH		SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE		
8	16.7	11.7	-	5.20	.4	.381	.1	.19	.075	.02	.04	bd1	.004	-		2
19	1.6	2.1	-	4.90	.8	-	.2	.40	-	.06	.14	.04	.019	-		2
22	.8	1.3	-	5.10	.6	-	.3	.29	-	.04	.23	.14	-	-		1
28	2.5	2.3	-	4.80	.4	.664	.1	.29	.017	.03	.02	bd1	-	-		2
29	.4	-	-	-	-	-	-	-	-	-	-	-	-	-		2
TOTAL PRECIP	22.0	17.4														
NO. OBS.	5	4	-	4	4	-	4	4	-	4	4	4	-	-		
A. MEAN	4.4	4.4	-	4.97	.6	-	.2	.29	-	.04	.11	.05	-	-		
STD. DEV.	6.9	4.9	-	5.36	.2	-	.1	.09	-	.02	.10	.07	-	-		
MINIMUM	.4	1.3	-	4.80	.4	-	.1	.19	-	.02	.02	bd1	-	-		
MAXIMUM	16.7	11.7	-	5.20	.8	-	.3	.40	-	.06	.23	.14	-	-		
P.W. MEAN			-	5.10	.4	-	.1	.22	-	.02	.05	.01	-	-		

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

NOTE: DAY ()-NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

DECEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Mg^{++}	NH_4^+	SO_2
1	1.19	.34	bd1	.23	bd1	bd1
2	1.02	.91	bd1	.11	.39	2.0
3	.79	.21	bd1	bd1	bd1	2.6
4	3.26	3.77	bd1	bd1	1.51	15.1
5	6.05	4.44	bd1	bd1	1.77	8.7
6	1.57	1.35	bd1	.13	.55	.6
7	.93	.93	bd1	.38	bd1	1.1
8	1.71	2.22	bd1	.28	.68	5.1
9	1.16	.56	1.12	.88	.43	3.0
10	.99	.64	1.22	1.07	bd1	2.1
11	.89	1.14	.34	.42	.44	2.2
12	1.23	1.35	bd1	.26	.51	2.4
13	1.30	.63	bd1	.27	bd1	3.0
14	1.16	.32	bd1	.20	bd1	2.4
15	* .56	.15	bd1	bd1	bd1	.7
16	* 1.36	1.50	bd1	bd1	.82	1.6
17	* .22	bd1	bd1	bd1	bd1	2.1
18	* 1.11	.14	3.14	1.95	.67	1.3
19	* 1.48	.25	2.53	1.80	.79	3.6
20	* 2.47	1.07	bd1	.67	1.27	3.4
21	* .73	.44	bd1	bd1	bd1	3.3
22	2.15	2.20	.30	.52	.94	3.3
23	1.59	.23	.54	.33	bd1	4.1
24	1.63	.44	.32	.27	.46	5.3
25	1.43	.61	bd1	.12	.46	2.2
26	1.41	.68	bd1	bd1	bd1	3.0
27	4.15	5.13	bd1	bd1	2.28	4.0
28	3.37	.55	bd1	.12	.84	6.0
29	2.45	.54	bd1	.13	.43	5.5
30	4.32	2.05	bd1	.13	1.39	2.9
31	2.26	.24	bd1	.24	.56	1.8

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	31	31	31
A. MEAN	1.80	1.13	-	.34	.55	3.4
S.D.	1.26	1.27	-	.49	.59	2.8
MIN.	.22	bd1	-	bd1	bd1	bd1
MAX.	6.05	5.13	-	1.95	2.28	15.1

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH		SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ICN BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE	TYPE
3	2.8	1.6	-	5.00	.5	.487	.1	-	bd1	-	-	-	-	-	2
6	.3	.8	-	-	2.9	-	.2	-	-	-	-	-	-	-	2
7	1.1	1.3	-	-	-	-	-	-	-	-	-	-	-	-	2
11	8.8	5.2	-	4.90	.2	.664	.1	.13	.064	.01	bd1	bd1	.006	-	2
12	.7	.8	-	-	1.0	-	.4	-	-	-	-	-	-	-	2
14	1.1	1.6	-	4.70	.5	1.372	.3	-	.010	-	-	-	-	-	2
16	7.8	7.5	-	6.20	1.3	1.372	.3	.38	.380	.04	.29	.13	.228	.90	2
18	1.0	.7	-	-	1.1	.310	.3	-	.053	-	-	-	-	-	2
22	.5	.3	-	-	1.9	bd1	.9	-	.008	-	-	-	-	-	2
23	1.0	1.0	-	6.10	.6	bd1	.3	-	bd1	-	-	-	-	-	2
25	.4	.1	-	-	4.6	-	2.0	-	-	-	-	-	-	-	2
29	.9	.3	-	-	.8	1.107	.3	-	.090	-	-	-	-	-	2
30	.4	1.0	-	4.20	3.2	-	1.2	-	-	-	-	-	-	-	2
31	.5	1.0	-	-	.5	-	.2	-	-	-	-	-	-	-	2
TOTAL PRECIP	27.3	23.2													
NO. OBS.	14	14	-	-	13	-	13	-	-	-	-	-	-	-	
A. MEAN	2.0	1.7	-	-	1.5	-	.5	-	-	-	-	-	-	-	
STD. DEV.	2.8	2.1	-	-	1.3	-	.5	-	-	-	-	-	-	-	
MINIMUM	.3	.1	-	-	.2	-	.1	-	-	-	-	-	-	-	
MAXIMUM	8.8	7.5	-	-	4.6	-	2.0	-	-	-	-	-	-	-	
P.W. MEAN			-	-	.8	-	.3	-	-	-	-	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

JANUARY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	1.62	0.12	bd1	0.19	bd1	2.1
2	1.59	0.15	0.31	0.24	0.62	2.6
3	1.65	0.15	0.37	0.24	bd1	-
4	1.76	0.67	bd1	0.20	0.70	3.5
5	2.28	1.52	bd1	bd1	1.21	2.4
6	1.51	0.19	0.58	0.37	0.63	3.2
7	1.06	0.23	0.41	0.25	bd1	1.1
8	1.32	0.70	0.31	0.28	0.63	2.5
9	2.04	0.24	bd1	0.12	0.71	5.2
10	1.88	0.34	bd1	0.27	0.68	6.3
11	3.14	1.25	bd1	0.31	1.41	4.8
12	3.25	1.74	bd1	0.23	2.02	2.3
13	2.68	0.35	bd1	0.18	1.23	1.4
14	2.29	0.07	bd1	bd1	0.74	bd1
15	1.36	bd1	bd1	bd1	bd1	1.0
16	1.61	0.41	bd1	0.16	0.99	3.0
17	1.10	1.24	bd1	0.21	0.91	1.7
18	1.05	1.25	bd1	0.14	0.85	2.2
19	2.16	2.48	bd1	bd1	1.55	bd1
20	2.18	1.18	bd1	bd1	1.34	0.8
21	0.50	0.44	bd1	bd1	bd1	1.4
22	0.36	0.42	bd1	bd1	bd1	2.0
23	1.01	2.30	bd1	0.12	1.10	3.7
24	0.85	3.19	bd1	0.14	1.03	5.8
25	1.07	1.89	bd1	0.12	0.83	2.6
26	0.70	0.19	0.28	0.21	bd1	1.5
27	1.64	0.36	bd1	0.20	bd1	4.7
28	1.61	0.19	0.42	0.35	bd1	bd1
29	1.27	0.22	0.29	0.26	bd1	0.9
30	1.37	1.86	bd1	0.19	0.87	2.9
31	2.06	4.02	bd1	0.13	1.50	2.6

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	31	31	30
A. MEAN	1.61	0.95	-	0.17	0.69	2.5
S.D.	0.69	1.01	-	0.11	0.58	1.6
MIN.	0.36	bd1	-	bd1	bd1	bd1
MAX.	3.25	4.02	-	0.37	2.02	6.3

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
2	0.2	0.7	-	5.90	1.7	0.062	0.9	-	0.008	-	-	-	0.001	-	2
4	0.3	0.8	-	-	5.5	1.036	1.5	-	0.019	-	-	-	-	-	2
13	1.6	2.0	-	5.40	0.5	0.367	0.3	0.14	0.021	0.02	0.20	0.12	-	1.03	2
27	0.6	0.8	-	-	7.8	3.422	1.8	-	0.697	-	-	-	-	-	2
31	5.3	4.6	-	5.40	bd1	1.536	0.2	0.52	bd1	0.06	0.12	0.07	0.010	-	2
TOTAL PRECIP	8.0	8.9													
NO. OBS.	5	5	-	-	5	5	5	-	5	-	-	-	-	-	
A. MEAN	1.6	1.8	-	-	3.1	1.285	0.9	-	0.149	-	-	-	-	-	
STD. DEV.	2.1	1.7	-	-	3.4	1.326	0.7	-	0.306	-	-	-	-	-	
MINIMUM	0.2	0.7	-	-	bd1	0.062	0.2	-	bd1	-	-	-	-	-	
MAXIMUM	5.3	4.6	-	-	7.8	3.422	1.8	-	0.697	-	-	-	-	-	
P.W. MEAN			-	-	0.9	1.388	0.4	-	0.057	-	-	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY() - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

FEBRUARY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	2.00	0.21	bd1	0.15	bd1	3.3
2	2.00	0.22	bd1	0.14	bd1	5.2
3	1.35	0.15	bd1	bd1	bd1	4.1
4	1.41	0.74	bd1	0.14	bd1	2.8
5	1.92	0.20	bd1	bd1	bd1	3.4
6	1.71	bd1	bd1	bd1	bd1	1.2
7	0.89	0.09	bd1	bd1	bd1	bd1
8	1.41	0.53	0.42	0.47	0.81	1.8
9	1.95	0.66	0.39	0.42	0.92	3.2
10	2.00	0.65	0.38	0.38	0.95	3.5
11	1.81	0.83	0.39	0.33	0.97	2.5
12	1.32	0.78	bd1	bd1	0.63	2.4
13	1.92	2.14	bd1	0.13	1.61	4.0
14	1.45	4.76	bd1	bd1	2.54	9.4
15	1.04	3.48	bd1	bd1	2.16	bd1
16	0.42	1.03	bd1	bd1	1.07	bd1
17	bd1	0.28	bd1	bd1	0.83	bd1
18	1.65	1.43	bd1	bd1	1.92	bd1
19	1.98	0.31	bd1	bd1	1.07	bd1
20	1.52	0.62	bd1	bd1	1.05	0.9
21	1.21	1.30	bd1	bd1	1.15	0.9
22	1.74	0.08	bd1	bd1	0.64	2.0
23	1.41	0.17	bd1	bd1	0.63	1.9
24	0.82	bd1	bd1	bd1	bd1	1.6
25	1.25	0.15	bd1	0.10	bd1	1.7
26	1.09	0.18	bd1	bd1	bd1	1.2
27	1.76	0.82	bd1	bd1	0.74	1.7
28	2.01	0.73	bd1	bd1	0.94	1.8

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	-	-	28	28
A. MEAN	1.47	0.81	-	-	0.74	2.2
S.D.	0.51	1.07	-	-	0.71	2.0
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	2.01	4.76	-	-	2.54	9.4

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
5	0.7	1.0	-	-	1.8	1.301	0.4	-	0.009	-	-	-	-	-	2
6	1.0	1.5	-	5.20	0.2	0.544	bd1	-	0.006	-	-	-	-	-	2
20	0.4	1.1	-	-	7.6	-	1.8	-	0.618	-	-	-	-	-	1
27	0.4	0.7	-	-	8.0	5.622	3.2	-	0.773	-	-	-	-	-	2
28	0.3	0.3	-	-	-	-	-	-	-	-	-	-	-	-	2
TOTAL PRECIP	2.8	4.6	-	-	-	-	-	-	-	-	-	-	-	-	-
NO. OBS.	5	5	-	-	4	-	4	-	4	-	-	-	-	-	-
A. MEAN	0.6	0.9	-	-	4.4	-	1.4	-	0.352	-	-	-	-	-	-
STD. DEV.	0.3	0.4	-	-	4.0	-	1.5	-	0.402	-	-	-	-	-	-
MINIMUM	0.3	0.3	-	-	0.2	-	bd1	-	0.006	-	-	-	-	-	-
MAXIMUM	1.0	1.5	-	-	8.0	-	3.2	-	0.773	-	-	-	-	-	-
P.W. MEAN	-	-	-	-	3.1	-	0.9	-	0.227	-	-	-	-	-	-

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

MARCH 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	1.21	bd1	bd1	bd1	bd1	2.4
2	0.86	0.21	bd1	bd1	bd1	0.8
3	1.27	0.67	bd1	bd1	bd1	2.0
4	0.70	0.17	bd1	bd1	bd1	1.0
5	0.57	0.12	bd1	bd1	bd1	bd1
6	0.32	0.11	bd1	bd1	bd1	bd1
7	0.62	0.22	bd1	0.24	bd1	0.9
8	0.46	0.18	bd1	bd1	bd1	bd1
9	1.18	0.11	bd1	bd1	bd1	1.1
10	2.08	0.22	bd1	bd1	0.77	1.9
11	1.04	0.50	bd1	bd1	bd1	1.1
12	0.25	bd1	bd1	bd1	bd1	bd1
13	0.89	0.25	bd1	bd1	bd1	0.8
14	0.82	0.50	bd1	bd1	bd1	1.2
15	0.99	0.15	bd1	bd1	bd1	1.0
16	0.89	0.21	bd1	bd1	bd1	1.6
17	1.20	bd1	bd1	bd1	bd1	1.2
18	0.67	bd1	bd1	bd1	bd1	1.1
19	0.60	0.07	bd1	bd1	bd1	bd1
20	0.85	0.10	bd1	bd1	bd1	bd1
21	1.17	0.29	bd1	bd1	bd1	1.5
22	0.71	0.14	bd1	bd1	bd1	2.6
23	0.72	0.15	bd1	0.18	bd1	2.1
24	1.42	0.49	bd1	bd1	bd1	1.6
25	1.48	0.90	bd1	bd1	bd1	2.2
26	1.63	0.43	bd1	bd1	bd1	1.3
27	6.18	2.10	bd1	bd1	1.82	2.8
28	4.93	4.39	bd1	bd1	2.09	bd1
29	1.21	0.42	bd1	bd1	bd1	bd1
30	0.91	0.21	bd1	bd1	bd1	bd1
31	1.16	0.11	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	31
A. MEAN	1.26	0.43	-	-	-	1.0
S.D.	1.22	0.83	-	-	-	0.9
MIN.	0.25	bd1	-	-	-	bd1
MAX.	6.18	4.39	-	-	-	2.8

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH										ION BAL.		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
3	3.5	2.3	-	4.40	1.3	1.386	bd1	0.25	0.594	0.03	0.10	0.04	-	-	2
4	0.6	1.0	-	-	-	0.027	-	-	0.079	-	-	-	-	-	2
9	0.3	0.7	-	-	-	-	-	-	-	-	-	-	-	-	3
19	3.6	2.4	-	6.00	0.8	0.257	bd1	0.22	0.013	0.03	0.21	0.03	0.055	-	2
25	2.8	3.3	-	6.20	3.7	4.427	0.2	1.03	1.751	0.17	0.51	0.15	0.015	1.17	1
27	4.3	4.7	-	5.00	2.5	2.200	0.1	0.36	0.862	0.04	0.27	0.09	0.144	1.03	1
31	5.0	6.8	-	4.40	3.9	3.099	bd1	1.11	0.874	0.15	0.27	0.08	0.026	-	3
TOTAL PRECIP	20.1	21.2													
NO. OBS.	7	7	-	5	5	6	-	5	6	5	5	5	-	-	
A. MEAN	2.9	3.0	-	4.74	2.4	1.899	-	0.59	0.696	0.08	0.27	0.08	-	-	
STD. DEV.	1.8	2.1	-	4.70	1.4	1.696	-	0.44	0.637	0.07	0.15	0.05	-	-	
MINIMUM	0.3	0.7	-	4.40	0.8	0.027	-	0.22	0.013	0.03	0.10	0.03	-	-	
MAXIMUM	5.0	6.8	-	6.20	3.9	4.427	-	1.11	1.751	0.17	0.51	0.15	-	-	
P.W. MEAN			-	4.70	2.5	2.179	-	0.61	0.765	0.08	0.26	0.08	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

APRIL 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	1.54	0.10	bd1	bd1	bd1	bd1
2	1.75	0.97	bd1	bd1	0.68	bd1
3	0.95	bd1	bd1	bd1	bd1	bd1
4	0.93	bd1	bd1	bd1	bd1	bd1
5	0.72	0.12	bd1	bd1	bd1	bd1
6	1.23	0.88	bd1	0.14	bd1	bd1
7	1.35	0.56	bd1	0.13	bd1	bd1
8	1.04	0.43	bd1	bd1	bd1	bd1
9	0.59	0.24	bd1	bd1	bd1	bd1
10	1.20	0.47	bd1	bd1	bd1	bd1
11	1.24	0.09	bd1	bd1	bd1	bd1
12	1.30	0.48	bd1	bd1	bd1	bd1
13	1.61	0.14	bd1	bd1	bd1	0.9
14	1.66	0.21	bd1	bd1	bd1	1.0
15	2.54	1.98	bd1	0.13	bd1	bd1
16	1.03	0.68	bd1	bd1	bd1	0.7
17	2.06	0.22	bd1	bd1	bd1	bd1
18	1.66	0.15	bd1	bd1	bd1	bd1
19	1.06	bd1	bd1	bd1	bd1	bd1
20	1.08	0.31	bd1	bd1	bd1	1.3
21	1.96	1.61	bd1	bd1	bd1	1.6
22	0.94	0.48	bd1	bd1	bd1	bd1
23	2.02	0.11	bd1	bd1	bd1	1.1
24	4.64	0.15	bd1	bd1	bd1	3.2
25	1.14	0.17	bd1	bd1	bd1	bd1
26	3.72	0.83	bd1	0.19	0.81	bd1
27	2.12	0.58	bd1	bd1	bd1	bd1
28	0.50	0.16	bd1	bd1	bd1	bd1
29	0.82	0.14	bd1	bd1	bd1	bd1
30	bd1	bd1	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	-	-
A. MEAN	1.48	0.41	-	-	-	-
S.D.	0.92	0.47	-	-	-	-
MIN.	bd1	bd1	-	-	-	-
MAX.	4.64	1.98	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
2	0.2	0.7	-	-	3.8	3.183	3.4	-	0.448	-	-	-	-	-	1
6	1.6	2.0	-	6.70	2.2	2.457	bd1	2.51	0.863	0.38	0.50	0.27	-	-	1
9	0.3	1.5	-	5.90	2.5	2.674	0.1	1.01	1.430	0.19	-	-	-	-	1
12	0.2	0.8	-	-	6.2	-	1.2	-	-	-	-	-	-	-	1
18	4.0	3.6	-	7.20	1.9	1.682	bd1	3.88	0.200	0.71	0.31	0.32	0.049	-	2
21	6.5	5.9	-	4.80	2.8	2.523	bd1	0.44	0.662	0.07	0.24	0.07	0.012	-	1
22	1.4	1.0	-	5.90	2.2	3.099	1.0	-	1.216	-	-	-	20.000	-	1
25	1.0	3.6	-	4.70	1.3	1.549	bd1	0.24	0.605	0.03	0.07	bd1	0.030	-	1
TOTAL PRECIP	15.2	19.1													
NO. OBS.	8	8	-	6	8	7	-	-	7	-	-	-	-	-	
A. MEAN	1.9	2.4	-	5.19	2.9	2.452	-	-	0.775	-	-	-	-	-	
STD. DEV.	2.2	1.8	-	5.05	1.5	0.635	-	-	0.430	-	-	-	-	-	
MINIMUM	0.2	0.7	-	4.70	1.3	1.549	-	-	0.200	-	-	-	-	-	
MAXIMUM	6.5	5.9	-	7.20	6.2	3.183	-	-	1.430	-	-	-	-	-	
P.W. MEAN			-	5.07	2.4	2.292	-	-	0.621	-	-	-	-	-	

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
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- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

MAY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	bd1	bd1	bd1	0.18	bd1	bd1
2	1.28	1.14	bd1	bd1	bd1	1.4
3	0.92	0.82	bd1	bd1	bd1	bd1
4	0.30	0.07	bd1	bd1	bd1	bd1
5	0.72	0.07	bd1	bd1	bd1	bd1
6	1.24	0.11	bd1	bd1	bd1	bd1
7	0.76	0.37	bd1	bd1	bd1	1.3
8	0.99	0.72	bd1	bd1	bd1	bd1
9	0.71	0.09	bd1	bd1	bd1	bd1
10	0.94	0.11	bd1	bd1	bd1	0.7
11	0.43	0.12	bd1	bd1	bd1	1.6
12	1.07	0.14	bd1	bd1	bd1	bd1
13	1.61	0.22	bd1	bd1	bd1	1.2
14	1.15	0.20	bd1	bd1	bd1	bd1
15	0.51	0.09	bd1	bd1	bd1	bd1
16	0.76	bd1	bd1	bd1	bd1	1.1
17	1.34	0.16	bd1	bd1	bd1	bd1
18	2.02	0.54	bd1	bd1	bd1	2.2
19	1.82	0.61	bd1	bd1	bd1	2.4
20	3.14	1.09	bd1	bd1	0.76	2.3
21	3.99	1.39	bd1	bd1	1.16	3.7
22	4.87	1.03	bd1	bd1	1.29	1.5
23	3.05	0.54	bd1	bd1	bd1	1.5
24	1.83	0.20	bd1	bd1	bd1	bd1
25	1.27	0.26	bd1	bd1	bd1	bd1
26	1.25	0.18	bd1	bd1	bd1	bd1
27	1.06	0.23	bd1	bd1	bd1	bd1
28	0.73	0.29	bd1	bd1	bd1	0.8
29	0.40	0.18	bd1	bd1	bd1	bd1
30	1.41	0.18	bd1	bd1	bd1	1.2
31	0.63	0.43	bd1	0.11	bd1	0.8

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	-
A. MEAN	1.36	0.37	-	-	-	-
S.D.	1.08	0.37	-	-	-	-
MIN.	bd1	bd1	-	-	-	-
MAX.	4.87	1.39	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
1	0.5	0.7	-	-	2.9	-	1.9	-	-	-	-	-	-	-	1
2	0.6	0.7	-	-	-	-	-	-	-	-	-	-	-	-	1
8	4.1	2.9	-	6.40	2.7	3.851	bd1	1.18	1.204	0.23	0.13	0.16	0.024	-	1
22	6.3	7.8	-	6.70	1.7	1.107	bd1	0.89	0.469	0.12	0.15	0.08	0.019	-	1
24	0.6	0.3	-	-	16.6	-	1.4	5.59	-	1.06	1.04	0.37	0.001	-	1
28	1.8	2.1	-	5.90	3.5	2.036	1.1	1.19	0.985	0.20	0.53	0.56	-	1.20	1
29	5.0	4.6	-	6.60	1.5	0.221	0.5	0.31	0.484	0.08	0.04	0.50	0.099	0.91	1
TOTAL PRECIP	18.9	19.1													
NO. OBS.	7	7	-	-	6	-	-	5	-	5	5	5	-	-	
A. MEAN	2.7	2.7	-	-	4.8	-	-	1.83	-	0.34	0.38	0.33	-	-	
STD. DEV.	2.4	2.7	-	-	5.8	-	-	2.13	-	0.41	0.42	0.21	-	-	
MINIMUM	0.5	0.3	-	-	1.5	-	-	0.31	-	0.08	0.04	0.08	-	-	
MAXIMUM	6.3	7.8	-	-	16.6	-	-	5.59	-	1.06	1.04	0.56	-	-	
P.W. MEAN			-	-	2.6	-	-	0.98	-	0.17	0.18	0.27	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

JUNE 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	0.94	0.25	bd1	0.30	bd1	bd1
2	0.27	0.18	bd1	bd1	bd1	bd1
3	bd1	bd1	bd1	bd1	bd1	bd1
4	0.34	0.14	bd1	bd1	bd1	bd1
5	1.02	0.24	bd1	bd1	bd1	bd1
6	0.82	0.18	bd1	bd1	bd1	bd1
7	3.14	0.40	bd1	bd1	bd1	bd1
8	0.30	0.10	bd1	bd1	bd1	bd1
9	0.55	0.07	bd1	bd1	bd1	1.2
10	0.77	bd1	bd1	bd1	bd1	bd1
11	0.63	0.17	bd1	bd1	bd1	bd1
12	0.90	0.30	bd1	bd1	bd1	bd1
13	2.08	0.26	bd1	bd1	bd1	bd1
14	1.02	0.10	bd1	bd1	bd1	bd1
15	bd1	0.11	bd1	bd1	bd1	bd1
16	bd1	0.10	bd1	bd1	bd1	bd1
17	0.62	0.40	bd1	bd1	bd1	bd1
18	0.34	bd1	bd1	bd1	bd1	0.8
19	0.33	0.14	bd1	bd1	bd1	0.9
20	0.68	0.23	bd1	bd1	bd1	bd1
21	bd1	bd1	bd1	bd1	bd1	1.1
22	0.21	0.14	bd1	bd1	bd1	bd1
23	bd1	0.10	bd1	bd1	bd1	1.0
24	bd1	bd1	bd1	bd1	bd1	1.8
25	0.47	0.13	bd1	bd1	bd1	bd1
26	0.23	0.09	bd1	bd1	bd1	bd1
27	2.35	0.74	bd1	bd1	bd1	1.0
28	0.93	0.23	bd1	bd1	bd1	bd1
29	0.61	0.19	bd1	bd1	bd1	bd1
30	0.69	0.24	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	-	-
A. MEAN	0.67	0.17	-	-	-	-
S.D.	0.72	0.15	-	-	-	-
MIN.	bd1	bd1	-	-	-	-
MAX.	3.14	0.74	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH										ION BAL.		PRECIP
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
4	15.0	15.8	-	4.80	1.0	0.266	bd1	0.16	0.021	0.02	0.16	0.06	0.024	-	1
5	5.0	5.5	-	4.90	0.6	0.398	bd1	0.14	0.021	0.02	0.28	0.02	0.011	-	1
7	14.2	15.0	-	5.00	0.7	0.487	bd1	0.15	0.149	0.03	0.06	0.08	0.011	-	1
8	1.4	1.0	-	5.90	0.9	0.044	0.5	-	0.009	-	-	-	-	-	1
13	9.2	8.5	-	5.00	0.3	0.708	bd1	0.16	0.179	0.03	0.05	0.03	0.012	-	1
14	37.2	37.1	-	5.30	0.6	0.266	bd1	0.09	0.033	0.01	0.09	0.01	0.003	-	1
15	5.6	4.9	-	5.10	0.8	0.089	bd1	0.12	0.012	0.03	0.22	0.06	0.021	-	1
17	2.8	3.7	-	5.80	1.4	1.594	0.5	1.37	0.310	0.26	0.28	0.28	-	1.77	1
23	18.2	17.9	-	5.00	0.3	0.044	bd1	0.07	0.014	0.01	0.02	0.02	0.006	-	1
24	6.3	5.5	-	6.30	0.6	0.531	bd1	0.38	0.082	0.07	0.16	0.04	0.004	-	1
25	2.0	2.0	-	5.20	1.0	0.620	bd1	-	0.098	-	-	-	-	-	1
26	2.6	2.6	-	5.10	2.0	2.966	bd1	-	1.051	-	-	-	-	-	1
27	21.4	21.7	-	4.50	1.6	1.904	bd1	0.39	0.680	0.04	0.04	0.04	0.003	-	1
28	13.8	14.7	-	5.20	0.7	0.531	bd1	0.17	0.156	0.03	0.01	0.02	0.005	-	1
30	-	3.1	-	5.10	1.0	bd1	bd1	-	bd1	-	-	-	0.023	-	1
TOTAL PRECIP 154.7 159.0															
NO. OBS.	14	15	-	15	15	15	-	11	15	11	11	11	11	-	
A. MEAN	11.1	10.6	-	5.05	0.9	0.697	-	0.29	0.188	0.05	0.12	0.06	0.011	-	
STD. DEV.	9.9	9.9	-	5.12	0.5	0.832	-	0.37	0.297	0.07	0.10	0.08	0.008	-	
MINIMUM	1.4	1.0	-	4.50	0.3	bd1	-	0.07	bd1	0.01	0.01	0.01	0.003	-	
MAXIMUM	37.2	37.1	-	6.30	2.0	2.966	-	1.37	1.051	0.26	0.28	0.28	0.024	-	
P.W. MEAN			-	4.95	0.8	0.617	-	0.19	0.173	0.03	0.09	0.04	0.008	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

JULY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.21	0.76	bd1	bd1	0.43	1.8
2	2.58	0.93	bd1	bd1	0.70	bd1
3	1.24	0.31	0.18	bd1	0.41	bd1
4	0.86	0.32	0.24	bd1	bd1	bd1
5	0.87	0.58	0.20	bd1	0.37	bd1
6	1.44	1.23	bd1	bd1	0.88	1.9
7	10.40	1.89	bd1	bd1	5.06	5.2
8	3.02	0.66	bd1	bd1	1.58	bd1
9	bd1	0.17	bd1	bd1	bd1	1.2
10	0.62	0.60	bd1	bd1	0.51	bd1
11	0.72	0.59	bd1	bd1	0.64	bd1
12	1.02	0.72	bd1	bd1	0.81	bd1
13	bd1	0.31	bd1	bd1	bd1	bd1
14	1.67	0.36	bd1	bd1	bd1	bd1
15	0.33	bd1	bd1	bd1	bd1	2.5
16	bd1	bd1	bd1	bd1	bd1	bd1
17	0.55	0.25	bd1	bd1	bd1	bd1
18	bd1	bd1	bd1	bd1	bd1	bd1
19	0.74	0.40	bd1	bd1	0.42	bd1
20	bd1	bd1	bd1	bd1	bd1	bd1
21	bd1	bd1	bd1	0.09	bd1	bd1
22	bd1	0.15	bd1	bd1	bd1	bd1
23	2.11	0.36	bd1	bd1	0.49	bd1
24	0.31	bd1	bd1	bd1	bd1	bd1
25	bd1	bd1	bd1	bd1	bd1	bd1
26	1.14	bd1	bd1	bd1	bd1	bd1
27	0.66	0.39	bd1	bd1	bd1	bd1
28	1.36	0.60	bd1	bd1	bd1	bd1
29	1.38	0.62	bd1	bd1	bd1	1.3
30	2.74	0.73	bd1	bd1	0.71	bd1
31	0.56	0.39	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	-
A. MEAN	1.21	0.43	-	-	-	-
S.D.	1.90	0.42	-	-	-	-
MIN.	bd1	bd1	-	-	-	-
MAX.	10.40	1.89	-	-	-	-

PRECIPITATION CONCENTRATIONS

(10^{-3} g l^{-1})

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE		
2	-	8.6	-	5.30	0.8	0.487	bd1	0.11	0.295	0.02	0.07	0.04	0.004	-		1
15	-	4.6	-	6.30	0.9	0.664	bd1	0.18	0.133	0.03	0.69	0.03	0.010	-		1
16	-	8.8	-	5.30	0.5	0.531	bd1	0.15	0.030	0.04	0.06	0.05	0.015	-		1
17	-	1.0	-	5.90	0.4	bd1	0.5	-	bd1	-	-	-	-	-		1
24	15.1	15.6	-	5.00	0.8	0.177	bd1	0.08	0.031	0.01	0.05	0.02	0.002	-		1
25	1.0	1.1	-	4.90	2.9	-	0.9	-	-	-	-	-	0.105	-		1
30	25.2	24.4	-	5.20	1.3	0.885	bd1	0.15	0.496	0.03	0.06	0.02	0.004	-		1
TOTAL PRECIP	41.3	64.1														
NO. OBS.	-	7	-	7	7	6	-	5	6	5	5	5	6	-		
A. MEAN	-	9.2	-	5.24	1.1	0.457	-	0.13	0.164	0.03	0.19	0.03	0.023	-		
STD. DEV.	-	8.4	-	5.36	0.9	0.322	-	0.04	0.195	0.01	0.28	0.01	0.040	-		
MINIMUM	-	1.0	-	4.90	0.4	bd1	-	0.08	bd1	0.01	0.05	0.02	0.002	-		
MAXIMUM	-	24.4	-	6.30	2.9	0.885	-	0.18	0.496	0.04	0.69	0.05	0.105	-		
P.W. MEAN			-	5.19	1.0	0.576	-	0.13	0.254	0.03	0.11	0.03	0.007			

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
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- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

AUGUST 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^-	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	0.76	0.21	bd1	bd1	bd1	bd1
2	0.80	0.32	0.11	bd1	bd1	bd1
3	0.39	0.28	bd1	bd1	bd1	bd1
4	0.86	0.34	bd1	bd1	0.44	bd1
5	0.77	0.42	bd1	bd1	bd1	1.6
6	0.67	bd1	bd1	bd1	bd1	bd1
7	0.47	0.21	bd1	bd1	bd1	bd1
8	bd1	bd1	bd1	bd1	bd1	bd1
9	bd1	bd1	bd1	bd1	bd1	bd1
10	0.47	0.34	bd1	bd1	bd1	bd1
11	1.36	0.73	0.18	bd1	0.53	bd1
12	1.25	0.35	bd1	bd1	0.66	1.6
13	0.71	0.22	bd1	bd1	bd1	bd1
14	0.25	bd1	bd1	bd1	bd1	bd1
15	bd1	bd1	0.22	bd1	bd1	bd1
16	bd1	bd1	0.19	bd1	bd1	bd1
17	1.04	0.94	0.19	bd1	bd1	bd1
18	0.94	0.72	0.17	bd1	bd1	bd1
19	3.78	1.83	bd1	bd1	0.89	bd1
20	4.37	1.65	bd1	bd1	1.08	bd1
21	5.17	1.34	bd1	bd1	1.28	2.8
22	15.48	2.73	bd1	bd1	3.62	1.9
23	8.90	1.26	bd1	bd1	2.23	1.2
24	1.96	0.41	bd1	bd1	0.59	bd1
25	1.01	0.27	bd1	bd1	0.35	bd1
26	1.33	0.36	bd1	bd1	0.73	bd1
27	0.42	0.27	bd1	bd1	bd1	bd1
28	2.19	0.26	bd1	bd1	0.44	1.5
29	2.78	0.14	bd1	bd1	0.47	1.2
30	3.13	0.45	bd1	bd1	0.82	1.4
31	1.59	0.28	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	-
A. MEAN	2.03	0.53	-	-	-	-
S.D.	3.12	0.63	-	-	-	-
MIN.	bd1	bd1	-	-	-	-
MAX.	15.48	2.73	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH		SO_4^-	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
5	9.2	8.8	-	5.00	0.8	0.708	bd1	0.06	0.010	0.01	0.02	0.02	0.007	-	1
6	7.6	10.4	-	5.30	0.5	0.310	bd1	0.02	bd1	bd1	0.04	0.02	0.002	-	1
8	3.7	3.6	-	4.90	0.8	0.487	bd1	0.05	0.071	bd1	0.08	0.06	0.008	-	1
9	0.5	1.6	-	5.60	0.5	-	bd1	0.15	-	0.02	0.25	0.09	-	-	1
20	0.5	0.7	-	-	4.6	-	0.9	-	-	-	-	-	-	-	1
31	5.1	4.9	-	4.60	1.4	1.638	bd1	0.26	0.323	0.05	0.10	0.19	0.011	-	1
TOTAL PRECIP	26.6	30.0													
NO. OBS.	6	6	-	5	6	-	-	5	-	-	5	5	-	-	
A. MEAN	4.4	5.0	-	4.96	1.4	-	-	0.11	-	-	0.10	0.08	-	-	
STD. DEV.	3.6	3.9	-	5.05	1.6	-	-	0.10	-	-	0.09	0.07	-	-	
MINIMUM	0.5	0.7	-	4.60	0.5	-	-	0.02	-	-	0.02	0.02	-	-	
MAXIMUM	9.2	10.4	-	5.60	4.6	-	-	0.26	-	-	0.25	0.19	-	-	
P.W. MEAN			-	4.93	0.9	-	-	0.09	-	-	0.05	0.06	-	-	

PRECIP TYPE

T - TRACE AMOUNT

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- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

SEPTEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	bd1	bd1	bd1	bd1	bd1	bd1
2	0.83	0.49	bd1	bd1	bd1	bd1
3	0.32	bd1	bd1	bd1	bd1	1.3
4	bd1	bd1	bd1	bd1	bd1	1.2
5	0.31	0.14	bd1	0.08	0.39	2.7
6	1.39	0.27	bd1	0.11	0.68	bd1
7	1.16	0.15	bd1	bd1	0.60	bd1
8	bd1	bd1	bd1	bd1	bd1	bd1
9	0.40	bd1	bd1	bd1	bd1	bd1
10	0.49	bd1	bd1	bd1	0.51	bd1
11	bd1	0.23	bd1	bd1	0.50	bd1
12	0.77	0.32	bd1	0.15	0.47	bd1
13	bd1	bd1	bd1	bd1	0.39	bd1
14	bd1	bd1	bd1	bd1	bd1	bd1
15	bd1	bd1	bd1	bd1	bd1	bd1
16	0.63	bd1	bd1	bd1	bd1	bd1
17	0.57	0.38	bd1	bd1	bd1	bd1
18	0.46	0.19	bd1	0.09	bd1	bd1
19	bd1	bd1	bd1	bd1	bd1	bd1
20	bd1	bd1	bd1	bd1	bd1	bd1
21	0.36	0.15	0.12	bd1	bd1	bd1
22	0.68	0.35	0.20	0.14	bd1	bd1
23	2.48	1.51	bd1	bd1	1.17	1.5
24	1.51	0.75	bd1	bd1	0.83	2.4
25	3.68	0.33	bd1	bd1	0.95	bd1
26	0.57	bd1	0.22	bd1	bd1	bd1
27	bd1	bd1	bd1	bd1	bd1	bd1
28	-	-	-	-	-	-
29	-	-	-	-	-	-
30	-	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	27	27	-	-	-	-
A. MEAN	0.62	0.19	-	-	-	-
S.D.	0.85	0.33	-	-	-	-
MIN.	bd1	bd1	-	-	-	-
MAX.	3.68	1.51	-	-	-	-

PRECIPITATION CONCENTRATIONS

(10^{-3} g l^{-1})

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	
5	13.0	14.0	-	4.70	2.9	2.700	bd1	0.32	1.244	0.04	0.05	0.05	0.005	-	1
6	70.6	65.1	-	5.50	0.8	0.531	bd1	0.05	0.193	0.01	0.04	0.04	0.025	-	1
7	0.6	0.7	-	-	2.5	-	1.4	-	-	-	-	-	0.013	-	1
10	0.4	0.7	-	4.50	3.0	-	0.3	bd1	-	-	-	-	-	-	1
15	1.6	1.6	-	5.30	0.6	-	0.3	0.11	-	0.02	0.14	0.14	-	-	1
23	-	8.1	-	4.50	2.5	1.726	0.1	0.42	0.690	0.06	0.04	0.07	0.002	1.18	1
25	1.6	1.6	-	4.80	3.4	1.505	0.4	0.31	0.851	0.05	0.30	0.22	-	0.95	1
26	33.2	44.8	-	5.90	0.3	0.177	0.1	0.04	0.090	bd1	0.05	0.03	0.006	-	1
30	29.4	30.6	-	5.10	0.5	0.354	0.2	0.06	0.062	bd1	0.11	0.03	0.008	-	1
TOTAL PRECIP 150.4 167.2															
NO. OBS.	8	9	-	8	9	-	9	8	-	7	7	7	-	-	
A. MEAN	18.8	18.6	-	4.84	1.8	-	0.3	0.16	-	0.03	0.10	0.08	-	-	
STD. DEV.	24.8	23.3	-	4.91	1.3	-	0.4	0.16	-	0.02	0.09	0.07	-	-	
MINIMUM	0.4	0.7	-	4.50	0.3	-	bd1	bd1	-	bd1	0.04	0.03	-	-	
MAXIMUM	70.6	65.1	-	5.90	3.4	-	1.4	0.42	-	0.06	0.30	0.22	-	-	
P.W. MEAN	-	-	-	5.27	0.9	-	0.1	0.08	-	0.01	0.06	0.04	-	-	

PRECIP TYPE

T - TRACE AMOUNT

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- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

OCTOBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	0.36	0.19	bd1	bd1	bd1	bd1
6	0.64	0.20	0.13	bd1	bd1	bd1
7	0.85	0.27	bd1	bd1	bd1	bd1
8	0.80	0.36	0.13	bd1	0.37	1.7
9	1.67	0.87	bd1	0.13	0.77	4.0
10	2.79	1.05	0.15	bd1	1.10	bd1
11	5.44	1.55	bd1	0.13	2.04	bd1
12	6.04	2.80	0.16	bd1	2.49	5.4
13	0.78	0.50	bd1	0.18	0.75	bd1
14	1.84	0.36	bd1	bd1	0.85	bd1
15	1.11	0.34	bd1	0.15	0.72	bd1
16	1.46	0.62	bd1	0.13	1.06	1.3
17	bd1	0.18	bd1	bd1	bd1	2.7
18	0.33	bd1	bd1	bd1	bd1	bd1
19	0.77	0.31	bd1	0.16	bd1	bd1
20	bd1	bd1	0.13	bd1	bd1	bd1
21	0.75	0.26	bd1	bd1	bd1	bd1
22	0.51	bd1	bd1	bd1	bd1	bd1
23	0.72	0.24	bd1	bd1	0.33	bd1
24	0.99	0.20	bd1	bd1	bd1	bd1
25	0.71	bd1	bd1	bd1	bd1	bd1
26	0.70	0.88	bd1	bd1	bd1	bd1
27	0.62	0.21	bd1	bd1	bd1	bd1
28	0.55	0.51	bd1	bd1	bd1	bd1
29	7.85	5.94	0.14	0.10	4.12	12.4
30	5.54	4.13	bd1	0.12	3.14	5.1
31	0.95	0.42	bd1	bd1	0.64	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	27	27	-	-	27	-
A. MEAN	1.66	0.83	-	-	0.68	-
S.D.	2.05	1.37	-	-	1.08	-
MIN.	bd1	bd1	-	-	bd1	-
MAX.	7.85	5.94	-	-	4.12	-

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
3	10.8	9.4	-	5.00	0.7	0.575	bd1	0.09	0.072	0.02	0.03	0.02	0.002	-	1
4	2.3	1.6	-	-	1.1	0.531	0.4	0.21	bd1	0.03	0.37	0.20	-	-	1
5	2.0	2.0	-	5.60	0.3	0.221	0.1	0.13	bd1	0.03	0.10	0.04	-	-	1
6	1.2	1.3	-	-	1.3	0.487	0.2	-	0.076	-	-	-	-	-	1
9	8.6	8.1	-	4.40	1.6	1.682	bd1	0.10	0.176	0.02	0.06	0.04	0.002	-	1
10	0.6	0.7	-	-	1.0	-	0.8	-	-	-	-	-	-	-	1
12	4.8	4.9	-	4.00	4.7	2.922	0.2	0.16	0.686	0.03	0.08	0.05	0.006	1.03	1
17	3.4	3.3	-	5.10	1.7	1.151	0.1	0.23	0.473	0.05	0.08	0.10	0.006	0.96	1
18	0.8	1.3	-	4.40	0.8	-	0.3	-	-	-	-	-	-	-	2
21	0.5	-	-	-	1.2	-	24.7	-	-	-	-	-	-	-	2
22	5.0	3.6	-	-	1.8	-	10.5	-	-	-	-	-	-	-	2
23	6.4	2.6	-	6.20	0.4	0.487	2.1	0.29	bd1	0.10	2.19	0.08	0.036	-	2
24	4.8	2.6	-	5.30	1.0	0.885	4.4	0.47	0.094	0.10	3.09	0.03	0.023	1.10	2
25	0.4	0.3	-	-	1.0	-	7.5	-	-	-	-	-	-	-	2
28	4.1	4.6	-	4.80	0.6	0.487	0.1	0.09	0.035	0.02	0.15	0.05	0.007	1.27	1
29	2.2	2.3	-	4.40	7.1	4.692	0.2	0.69	2.044	0.10	0.27	0.22	-	0.93	1
TOTAL PRECIP	57.9	48.6													
NO. OBS.	16	15	-	-	16	-	16	-	-	-	-	-	-	-	
A. MEAN	3.6	3.2	-	-	1.6	-	3.2	-	-	-	-	-	-	-	
STD. DEV.	3.0	2.6	-	-	1.8	-	6.5	-	-	-	-	-	-	-	
MINIMUM	0.4	0.3	-	-	0.3	-	bd1	-	-	-	-	-	-	-	
MAXIMUM	10.8	9.4	-	-	7.1	-	24.7	-	-	-	-	-	-	-	
P.W. MEAN			-	-	1.6	-	1.8	-	-	-	-	-	-	-	

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
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DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

NOVEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.39	0.51	bd1	bd1	0.46	2.0
2	bd1	0.60	bd1	bd1	bd1	bd1
3	1.41	1.70	bd1	bd1	0.91	4.0
4	4.44	4.31	bd1	bd1	2.59	1.8
5	0.98	bd1	bd1	bd1	bd1	1.4
6	0.80	0.68	bd1	bd1	0.41	bd1
7	0.71	0.84	bd1	bd1	bd1	bd1
8	0.50	bd1	bd1	bd1	0.67	1.8
9	0.46	0.46	bd1	0.13	bd1	bd1
10	1.67	0.17	bd1	bd1	0.41	2.3
11	1.40	0.74	0.18	bd1	0.50	1.4
12	1.42	4.29	bd1	bd1	1.29	4.2
13	2.70	4.98	bd1	0.13	1.79	4.2
14	6.33	11.75	bd1	0.11	3.98	1.8
15	5.11	6.64	bd1	bd1	2.82	bd1
16	1.22	0.78	bd1	bd1	0.60	bd1
17	bd1	bd1	bd1	bd1	bd1	2.1
18	0.77	bd1	bd1	0.14	0.51	bd1
19	bd1	bd1	bd1	bd1	bd1	bd1
20	bd1	bd1	bd1	bd1	bd1	bd1
21	0.49	0.35	bd1	bd1	bd1	bd1
22	0.69	1.14	bd1	bd1	0.70	7.3
23	2.62	3.47	bd1	bd1	1.31	bd1
24	0.81	0.90	bd1	bd1	bd1	bd1
25	0.51	bd1	bd1	bd1	bd1	bd1
26	0.52	bd1	bd1	bd1	bd1	bd1
27	0.46	bd1	bd1	bd1	bd1	bd1
28	1.85	0.56	bd1	bd1	0.63	bd1
29	0.99	0.92	bd1	bd1	1.54	bd1
30	2.94	4.83	bd1	bd1	4.94	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	30	-
A. MEAN	1.41	1.69	-	-	0.87	-
S.D.	1.55	2.65	-	-	1.24	-
MIN.	bd1	bd1	-	-	bd1	-
MAX.	6.33	11.75	-	-	4.94	-

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	
5	0.4	1.0	-	4.80	2.7	-	0.5	-	-	-	-	-	-	-	1
7	0.4	0.8	-	-	2.1	-	1.1	-	-	-	-	-	-	-	2
13	1.6	2.0	-	6.40	3.1	-	0.9	0.70	-	0.14	0.59	0.76	0.013	-	1
15	9.2	9.9	-	4.70	2.6	2.098	bd1	0.20	1.068	0.03	0.07	0.05	0.005	-	1
17	0.3	0.8	-	-	2.5	-	0.9	-	-	-	0.56	0.30	-	-	2
24	0.7	1.6	-	4.80	1.6	-	bd1	0.23	-	0.04	0.41	0.11	-	-	2
25	5.0	2.6	-	5.10	0.9	1.080	bd1	0.20	0.006	0.03	0.23	0.05	0.004	-	2
26	12.6	6.5	-	4.90	0.9	0.810	bd1	0.06	0.006	0.01	0.13	0.03	0.002	-	2
TOTAL PRECIP	30.2	25.2													
NO. OBS.	8	8	-	6	8	-	-	-	-	-	6	6	-	-	
A. MEAN	3.8	3.2	-	4.92	2.1	-	-	-	-	-	0.33	0.22	-	-	
STD. DEV.	4.7	3.3	-	5.16	0.8	-	-	-	-	-	0.22	0.28	-	-	
MINIMUM	0.3	0.8	-	4.70	0.9	-	-	-	-	-	0.07	0.03	-	-	
MAXIMUM	12.6	9.9	-	6.40	3.1	-	-	-	-	-	0.59	0.76	-	-	
P.W. MEAN			-	4.87	1.6	-	-	-	-	-	0.16	0.08	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

DECEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	1.89	1.57	bd1	bd1	0.88	2.7
2	1.39	bd1	bd1	bd1	1.00	bd1
3	1.58	0.63	bd1	bd1	1.88	bd1
4	1.97	0.61	bd1	bd1	3.19	bd1
5	0.86	0.91	bd1	bd1	bd1	bd1
6	1.77	1.97	bd1	bd1	bd1	3.1
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	1.22	0.34	bd1	bd1	bd1	2.4
15	0.58	bd1	0.45	0.20	bd1	2.7
16	1.71	1.20	bd1	bd1	bd1	3.4
17	0.97	bd1	bd1	bd1	bd1	bd1
18	0.69	3.27	bd1	bd1	1.02	bd1
19	bd1	bd1	bd1	bd1	bd1	bd1
20	1.35	0.90	bd1	bd1	bd1	bd1
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	-	-	-	-	-	-
28	0.55	bd1	0.43	0.29	0.54	1.2
29	0.62	0.85	0.14	0.20	0.53	3.9
30	0.51	1.21	bd1	0.10	0.75	3.5
31	0.70	0.20	0.22	0.14	bd1	3.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
1	1.8	1.5	-	4.50	2.2	-	bd1	0.29	-	0.05	0.38	0.04	-	-	2
3	0.5	1.0	-	4.60	2.6	-	0.5	-	-	-	-	-	-	-	2
7	1.0	0.8	-	4.80	1.5	-	bd1	-	-	-	-	-	-	-	2
10	1.3	0.7	-	5.60	0.9	-	bd1	-	-	-	-	-	-	-	2
11	5.5	5.2	-	5.10	0.6	1.009	bd1	0.15	0.099	0.04	0.13	0.05	0.008	-	2
12	0.6	1.0	-	4.90	1.0	-	bd1	-	-	-	-	-	-	-	2
13	0.7	0.8	-	-	2.6	-	2.5	-	-	-	-	-	-	-	2
20	6.0	4.6	-	5.70	0.7	0.629	bd1	0.09	0.003	0.02	0.11	0.05	0.004	-	2
21	1.1	1.3	-	6.00	1.8	-	0.6	-	-	-	-	-	-	-	2
22	3.0	1.6	-	5.50	1.1	-	0.6	0.35	-	0.07	0.49	0.24	-	-	2
23	-	1.0	-	6.10	0.7	-	bd1	bd1	-	bd1	0.26	0.07	-	-	2
24	0.3	0.7	-	6.60	1.3	-	0.9	-	-	-	-	-	-	-	2
27	0.8	0.7	-	6.80	1.5	-	1.0	-	-	-	-	-	-	-	2
TOTAL PRECIP	22.6	20.9													
NO. OBS.	12	13	-	12	13	-	-	-	-	-	-	-	-	-	
A. MEAN	1.9	1.6	-	5.07	1.4	-	-	-	-	-	-	-	-	-	
STD. DEV.	1.9	1.5	-	4.97	0.7	-	-	-	-	-	-	-	-	-	
MINIMUM	0.3	0.7	-	4.50	0.6	-	-	-	-	-	-	-	-	-	
MAXIMUM	6.0	5.2	-	6.80	2.6	-	-	-	-	-	-	-	-	-	
P.W. MEAN			-	5.13	1.1	-	-	-	-	-	-	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

1 - RAIN

2 - SNOW

3 - MIXED

4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

APPENDIX 2

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS IN AIR AND PRECIPITATION AT ALGOMA

ALGOMA

SEPTEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
6	-	-	-	-	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	-	-	-	-	-	-
28	-	-	-	-	-	-
29	12.17	2.84	bd1	.06	2.91	10.3
30	1.67	.43	bd1	.03	.64	1.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE		
22	.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
24	6.2	5.8	-	6.60	3.1	1.682	.5	.85	.948	.13	1.20	.25	.285	1.30	-	1
25	28.0	25.7	-	4.50	1.8	1.505	.1	.25	.428	.03	.08	.05	.013	1.16	-	1
27	1.2	.2	-	-	-	-	-	-	-	-	-	-	-	-	-	1
30	4.0	3.1	-	5.90	4.6	2.877	.3	.85	1.117	.12	1.32	.09	.169	1.13	-	1
TOTAL PRECIP	39.3	34.8														
NO. OBS.	5	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
A. MEAN	8.0	8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	
STD. DEV.	11.4	11.6	-	-	-	-	-	-	-	-	-	-	-	-	-	
MINIMUM	.4	.2	-	-	-	-	-	-	-	-	-	-	-	-	-	
MAXIMUM	28.0	25.7	-	-	-	-	-	-	-	-	-	-	-	-	-	
P.W. MEAN			-	-	-	-	-	-	-	-	-	-	-	-	-	

PRECIP TYPE T - TRACE AMOUNT
 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
 IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ALGOMA

OCTOBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	1.20	.53	bd1	.03	.61	.7
2	.23	bd1	bd1	bd1	.22	3.0
3	.20	bd1	bd1	bd1	.20	bd1
4	.27	bd1	bd1	.03	.24	bd1
5	1.09	.51	bd1	.04	.60	1.5
6	-	-	-	-	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	.15	bd1	bd1	bd1	bd1	.3
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	.71	.19	bd1	bd1	bd1	bd1
21	.32	.14	bd1	bd1	bd1	1.5
22	.11	.16	bd1	bd1	bd1	bd1
23	.56	.87	bd1	.05	.36	4.4
24	2.93	3.07	bd1	.08	1.18	14.2
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	-	-	-	-	-	-
28	.38	bd1	bd1	bd1	bd1	10.5
29	.84	.19	bd1	.03	.22	8.1
30	-	-	-	-	-	-
31	-	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH											ION BAL.	
	STD (mm)	COLL (mm)	FIELD	LAB	SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	+VE/-VE	PRECIP TYPE
5	4.0	3.7	-	6.40	2.2	1.549	.3	.28	.675	.06	1.62	.05	.211	1.38	1
9	6.9	6.5	-	6.60	6.9	6.198	.4	3.23	2.477	.36	.32	.35	.088	1.28	1
11	1.5	1.7	-	5.50	1.5	1.195	.1	-	.258	-	.23	.09	-	-	1
20	2.0	3.3	-	5.70	1.3	.443	.3	.37	.269	.05	.19	.20	.025	1.20	1
21	4.6	4.0	-	6.20	.8	.044	.4	.19	.004	.02	1.17	.17	.132	1.87	1
24	12.6	9.4	-	4.10	4.0	4.338	.3	.47	.538	.05	1.04	.09	.146	1.15	1
26	2.4	5.3	-	6.20	2.0	.664	.4	.17	.273	.04	1.26	.22	.127	1.33	2
28	.4	.3	-	-	11.3	-	4.3	-	-	-	-	-	-	-	2
30	1.6	1.4	-	6.40	19.8	1.151	.3	-	.331	-	.35	.17	-	-	2
TOTAL PRECIP	36.0	35.6													
NO. OBS.	9	9	-	8	9	8	9	-	8	-	8	8	-	-	
A. MEAN	4.0	4.0	-	4.96	5.5	1.948	.8	-	.603	-	.77	.17	-	-	
STD. DEV.	3.8	2.8	-	4.56	6.3	2.161	1.3	-	.783	-	.56	.09	-	-	
MINIMUM	.4	.3	-	4.10	.8	.044	.1	-	.004	-	.19	.05	-	-	
MAXIMUM	12.6	9.4	-	6.60	19.8	6.198	4.3	-	2.477	-	1.62	.35	-	-	
P.W. MEAN			-	4.54	4.3	3.088	.4	-	.806	-	.88	.16	-	-	

PRECIP TYPE
 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

T - TRACE AMOUNT

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
 IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ALGOMA

NOVEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	.38	bd1	bd1	.04	bd1	2.2
2	1.29	.93	bd1	.05	.59	6.3
3	4.77	6.66	bd1	.08	2.44	16.5
4	.67	.34	bd1	bd1	.26	.8
5	.60	.23	bd1	.03	.24	.5
6	1.15	.89	bd1	.03	.53	1.8
7	-	-	-	-	-	-
8	.58	.23	bd1	.04	bd1	1.8
9	.89	bd1	bd1	.04	bd1	6.5
10	-	-	-	-	-	-
11	.47	bd1	bd1	.10	bd1	bd1
12	.92	.43	bd1	.09	bd1	2.3
13	1.14	.63	bd1	.04	.27	1.2
14	1.12	bd1	bd1	.04	bd1	1.1
15	.42	bd1	bd1	.05	bd1	10.4
16	1.63	.77	bd1	.07	.44	3.0
17	1.11	.13	bd1	.05	bd1	1.6
18	.60	.25	bd1	.06	bd1	.3
19	1.38	2.38	bd1	.10	.75	1.4
20	.77	2.09	.17	.15	.60	5.4
21	1.45	.99	.16	.10	.46	3.9
22	1.79	.82	.22	.05	.91	9.9
23	1.33	2.87	bd1	bd1	.77	3.5
24	.58	.21	.19	.06	bd1	bd1
25	1.09	.90	bd1	.04	.33	1.2
26	2.42	1.25	bd1	.03	-	3.3
27	2.26	2.32	bd1	bd1	.73	10.1
28	1.82	.64	bd1	bd1	.23	9.7
29	.97	.28	bd1	.04	.29	1.8
30	.58	.48	bd1	.03	.30	1.1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	-	28	27	28
A. MEAN	1.22	.95	-	.05	.38	3.9
S.D.	.88	1.37	-	.04	.50	4.1
MIN.	.38	bd1	-	bd1	bd1	bd1
MAX.	4.77	6.66	-	.15	2.44	16.5

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} g l^{-1})

DAY	AMOUNT		pH										ION BAL.		PRECIP
	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁻	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	
1	1.8	1.6	-	6.30	1.9	.177	bd1	1.13	.009	.19	.13	.05	-	-	1
3	1.1	.9	-	6.70	4.9	2.302	1.1	-	.590	-	-	-	-	-	1
4	-	2.9	-	6.10	1.0	.133	.2	.38	.053	.05	.12	.03	-	.95	2
6	2.8	2.0	-	6.00	2.2	1.638	.3	.47	.522	.09	1.30	.02	.264	1.35	1
10	13.6	26.1	-	4.90	2.4	2.213	.1	.58	.980	.06	.05	bd1	.030	-	3
12	25.1	21.9	-	6.80	1.1	1.018	.2	1.34	.111	.42	.49	.09	.088	1.66	2
14	2.7	1.6	-	6.20	6.8	1.594	.3	4.40	.037	.42	.20	.08	.510	1.46	2
16	1.4	1.1	-	4.30	3.5	4.515	.2	.81	1.118	.10	-	-	-	-	2
21	3.2	3.1	-	6.80	5.2	11.864	1.0	3.12	2.189	.85	1.27	.28	.157	1.14	3
24	14.0	7.2	-	5.20	1.9	3.714	.2	.67	.956	.07	.12	.10	.009	1.01	2
28	6.3	3.7	-	5.10	1.4	2.745	.1	.80	.057	.30	.06	.03	.009	1.04	2
TOTAL PRECIP					72.0	72.1									
NO. OBS.	10	11	-	11	11	11	11	10	11	10	9	9	-	-	
A. MEAN	7.2	6.6	-	5.14	2.9	2.901	.3	1.37	.602	.26	.42	.08	-	-	
STD. DEV.	7.9	8.8	-	4.83	1.9	3.262	.4	1.33	.676	.25	.51	.08	-	-	
MINIMUM	1.1	.9	-	4.30	1.0	.133	bd1	.38	.009	.05	.05	bd1	-	-	
MAXIMUM	25.1	26.1	-	6.80	6.8	11.864	1.1	4.40	2.189	.85	1.30	.28	-	-	
P.W. MEAN	-	-	-	5.27	2.1	2.513	.2	1.16	.565	.27	.34	.07	-	-	

PRECIP TYPE

- 1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

T - TRACE AMOUNT

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ²⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	.27	bd1	bd1	.02	bd1	2.8
4	.19	bd1	bd1	.05	bd1	11.4
5	1.62	2.15	bd1	.11	.68	7.3
6	-	-	-	-	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	* .77	.14	bd1	* .15	* .35	2.8
14	* .76	bd1	.24	* .17	* .44	3.9
15	* 1.25	.17	bd1	* .13	* .42	15.1
16	* 1.06	.27	.49	* .27	* .49	18.8
17	* 1.76	.50	bd1	* .09	* .59	12.4
18	* 1.15	.12	-	* .45	bd1	5.3
19	* 1.12	.19	-	* .54	* .32	1.8
20	* 1.22	.14	.29	* .13	.19	3.1
21	* 1.08	.27	bd1	* .06	bd1	1.6
22	* 2.04	2.04	bd1	* .15	.70	13.1
23	* 2.64	2.95	bd1	* .24	.97	12.1
24	* .62	.11	.30	* .17	bd1	1.8
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	-	-	-	-	-	-
28	-	-	-	-	-	-
29	-	-	-	-	-	-
30	* 1.05	.57	.82	* .45	* .62	7.3
31	* .94	.35	bd1	* .10	* .37	9.1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

														ION BAL.		PRECIP
AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	RATIO			
DAY	STD (mm)	COLL (mm)	FIELD										LAB	+VE/-VE	TYPE	
2	6.6	6.0	-	5.60	1.6	1.129	.2	.54	.232	.06	.17	.09	.015	.96	2	
5	1.4	2.3	-	3.80	7.9	9.562	.9	1.28	1.397	.16	.50	.19	.027	.99	3	
7	7.9	6.8	-	5.90	3.4	1.948	.2	1.56	.345	.23	.16	.08	.220	1.11	2	
8	1.1	.3	-	-	1.8	-	.7	-	-	-	-	-	-	-	3	
9	6.1	5.0	-	5.70	.7	.354	.1	.16	.039	.02	.58	bd1	.082	-	3	
12	28.6	29.5	-	5.60	.6	.310	.1	.15	.036	.02	.44	bd1	.057	-	2	
15	14.3	9.4	-	4.90	.8	.310	.1	.17	.045	.03	.12	bd1	.006	-	2	
19	42.6	31.6	-	4.80	1.0	.930	.1	1.26	.344	.02	.08	bd1	.004	-	2	
21	21.2	15.9	-	4.70	.8	.722	.3	.01	.035	bd1	.18	.04	-	-	2	
22	32.5	14.7	-	4.30	2.8	3.143	.6	.42	.523	.11	.47	.06	.023	1.05	2	
26	9.0	6.9	-	4.60	1.1	1.992	.2	.26	.288	.06	.41	.11	.010	1.30	2	
30	4.7	.4	-	5.50	.9	-	.5	-	-	-	-	-	-	-	2	
31	-	4.3	-	4.80	.5	.664	.1	.18	bd1	.04	.08	.02	.007	-	2	
TOTAL PRECIP 176.0 133.1																
NO. OBS.	12	13	-	12	13	11	13	11	11	11	11	11	10	-		
A. MEAN	14.7	10.2	-	4.59	1.8	1.915	.3	.54	.299	.07	.29	.05	.045	-		
STD. DEV.	13.5	10.2	-	4.36	2.0	2.686	.3	.55	.403	.07	.19	.06	.066	-		
MINIMUM	1.1	.3	-	3.80	.5	.310	.1	.01	bd1	bd1	.08	bd1	.004	-		
MAXIMUM	42.6	31.6	-	5.90	7.9	9.562	.9	1.56	1.397	.23	.58	.19	.220	-		
P.W. MEAN	-	-	-	4.70	1.4	1.332	.3	.56	.253	.05	.28	.03	.034	-		

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1 IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ALGOMA

JANUARY 1981

AIR CONCENTRATIONS (10^{-6}gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	1.34	bd1	bd1	bd1	0.43	3.1
2	1.12	bd1	0.18	bd1	bd1	6.0
3	1.08	bd1	0.35	0.16	bd1	3.6
4	0.55	bd1	0.21	0.12	bd1	4.6
5	1.89	2.11	bd1	0.13	0.85	8.8
6	2.84	2.13	0.18	0.18	1.14	7.1
7	0.43	bd1	0.15	bd1	bd1	7.6
8	0.85	bd1	bd1	bd1	bd1	5.4
9	1.08	bd1	bd1	bd1	bd1	8.1
10	1.83	0.43	0.15	bd1	0.47	7.8
11	1.13	0.28	bd1	bd1	bd1	2.4
12	0.99	0.77	bd1	bd1	0.39	3.5
13	5.07	4.49	bd1	bd1	1.63	12.0
14	8.00	5.81	bd1	bd1	3.40	31.4
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	0.59	bd1	bd1	bd1	bd1	1.2
19	0.54	bd1	bd1	bd1	bd1	1.4
20	-	-	-	-	-	-
21	0.34	bd1	bd1	bd1	bd1	0.7
22	0.65	bd1	bd1	bd1	bd1	2.6
23	bd1	bd1	bd1	bd1	bd1	bd1
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	1.29	0.40	bd1	0.19	0.50	1.5
28	1.62	0.57	bd1	0.15	0.61	2.9
29	-	-	-	-	-	-
30	-	-	-	-	-	-
31	3.19	-	0.28	0.19	1.28	17.6

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS

(10^{-3}gl^{-1})

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TCT P	ION BAL.	PRECIP
	STD (mm)	COLL (mm)	FIELD	LAB										RATIO +VE/-VE	
1 [2]	6.4	3.6	-	4.60	1.1	1.815	0.1	0.29	0.086	0.05	0.33	0.07	-	1.14	2
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
5	5.9	2.3	-	5.60	1.0	1.107	0.2	0.69	0.062	0.11	0.29	0.06	0.020	1.34	2
7 [3]	8.8	1.9	-	6.30	1.0	0.885	0.3	1.19	bd1	0.35	0.22	0.02	-	-	2
8	-	4.5	-	4.60	0.5	1.372	0.1	0.18	0.008	0.05	0.13	0.01	0.008	1.20	2
9	-	2.7	-	4.30	6.1	7.526	0.6	1.61	1.339	0.13	0.49	0.13	-	0.90	2
11 [2]	0.9	0.2	-	-	-	-	-	-	-	-	-	-	-	-	2
12	-	0.5	-	4.00	5.3	6.906	1.3	-	0.649	-	-	-	-	-	2
14 [3]	2.9	0.8	-	3.90	2.0	7.158	0.7	-	0.066	-	-	-	-	-	2
15	-	0.2	-	-	5.4	5.370	3.7	-	0.036	-	-	-	-	-	2
16	-	0.2	-	-	3.7	5.135	1.4	-	0.054	-	-	-	-	-	2
27 [2]	1.8	0.3	-	-	3.5	4.192	1.3	-	0.495	-	-	-	-	-	3
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
31	8.8	4.7	-	4.40	1.5	2.979	0.3	0.11	0.219	0.02	0.18	0.03	0.005	0.78	2
TOTAL PRECIP	35.5	21.9													
NO. OBS.	-	12	-	-	11	11	11	-	11	-	-	-	-	-	
A. MEAN	-	1.8	-	-	2.8	4.040	0.9	-	0.274	-	-	-	-	-	
STD. DEV.	-	1.7	-	-	2.1	2.546	1.1	-	0.412	-	-	-	-	-	
MINIMUM	-	0.2	-	-	0.5	0.885	0.1	-	bd1	-	-	-	-	-	
MAXIMUM	-	4.7	-	-	6.1	7.526	3.7	-	1.339	-	-	-	-	-	
P.W. MEAN	-	-	-	-	1.9	2.940	0.3	-	0.262	-	-	-	-	-	

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

FEBRUARY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	4.99	2.18	bd1	0.15	1.47	24.0
2	1.15	bd1	bd1	bd1	bd1	2.2
3	2.21	0.51	0.16	0.16	0.58	3.3
4	1.66	0.42	bd1	0.11	0.43	3.2
5	2.49	4.54	bd1	bd1	1.46	8.8
6	1.27	0.54	bd1	bd1	bd1	1.9
7	3.25	1.87	bd1	bd1	1.07	13.5
8	0.37	bd1	bd1	bd1	bd1	6.1
9	1.58	0.86	0.14	0.17	0.40	3.5
10	1.63	0.72	bd1	0.16	0.43	4.7
11	0.82	bd1	0.20	0.12	bd1	4.7
12	2.57	2.29	0.17	0.21	0.89	7.5
13	5.81	-	bd1	0.17	1.91	18.6
14	5.44	7.48	0.20	0.14	3.74	33.2
15	7.78	6.68	0.38	0.32	3.90	41.0
16	5.18	9.64	0.25	0.13	5.27	5.0
17	7.35	13.61	0.63	0.17	6.80	7.8
18	7.26	5.96	0.23	0.13	4.17	4.8
19	2.96	2.69	0.16	bd1	1.58	0.7
20	0.76	0.50	bd1	bd1	0.45	bd1
21	2.90	0.73	bd1	bd1	0.71	27.5
22	1.77	0.73	bd1	bd1	0.47	6.8
23	2.14	1.59	bd1	bd1	0.75	2.9
24	1.12	bd1	bd1	bd1	bd1	4.4
25	1.44	bd1	bd1	bd1	bd1	14.9
26	0.62	bd1	bd1	bd1	bd1	0.6
27	1.50	0.44	bd1	bd1	bd1	7.4
28	1.73	bd1	bd1	bd1	bd1	4.0

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	27	-	28	28	28
A. MEAN	2.85	2.37	-	0.08	1.30	9.4
S.D.	2.19	3.45	-	0.09	1.80	10.4
MIN.	0.37	bd1	-	bd1	bd1	bd1
MAX.	7.78	13.61	-	0.32	6.80	41.0

PRECIPITATION CONCENTRATIONS

(10^{-3} g l^{-1})

															ION BAL.	
AMOUNT		pH													RATIO	PRECIP
DAY	STD (mm)	COLL (mm)	FIELD	LAE	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE	
1	7.0	5.0	-	4.20	3.9	3.364	0.5	0.29	0.666	0.04	0.27	0.05	0.012	0.88	2	
5 [2]	10.4	6.3	-	5.30	0.9	3.572	0.4	0.79	0.175	0.23	0.21	0.03	0.004	0.95	2	
6	-	0.9	-	4.40	1.8	4.130	0.4	-	0.288	-	-	-	-	-	2	
7 [2]	1.1	2.1	-	4.50	4.5	10.270	0.6	2.74	2.073	0.32	0.75	0.21	0.025	1.25	2	
9	-	3.2	-	4.80	0.5	1.664	0.3	0.34	0.022	0.07	0.43	0.06	0.005	1.34	2	
10 [4]	1.6	2.4	-	-	5.2	3.935	1.6	-	0.296	-	-	-	-	-	2	
11	-	1.4	-	5.70	1.6	1.266	0.7	0.86	0.207	0.18	0.99	0.16	-	1.57	2	
12	-	0.5	-	4.50	2.5	6.738	1.4	-	0.376	-	-	-	-	-	2	
13	-	2.6	-	6.50	2.3	5.808	0.8	2.21	0.390	0.86	0.91	0.11	-	1.36	2	
16	5.5	5.8	-	4.40	3.9	8.300	0.7	0.59	3.115	0.09	0.58	0.16	0.024	1.19	3	
17 [2]	8.0	1.6	-	4.20	8.7	11.187	1.5	1.74	3.882	0.22	1.66	0.45	-	1.16	3	
18	-	5.6	-	4.20	5.5	6.742	0.6	0.66	2.462	0.09	0.66	0.13	0.025	1.13	3	
22 [2]	9.6	0.6	-	-	8.8	11.997	1.8	-	1.265	-	-	-	-	-	1	
23	-	8.0	-	4.50	3.3	3.338	bd1	0.89	0.339	0.13	0.24	0.08	0.028	-	3	
24 [2]	15.6	1.1	-	-	7.8	5.091	0.8	1.59	1.070	0.35	1.40	0.18	-	-	3	
27	-	10.4	-	4.60	1.4	1.806	bd1	0.10	0.197	0.01	0.12	0.04	0.004	-	2	
TOTAL PRECIP	58.8	57.5														
NO. OBS.	-	16	-	13	16	16	16	12	16	12	12	12	-	-		
A. MEAN	-	3.6	-	4.50	3.9	5.576	0.8	1.07	1.051	0.22	0.69	0.14	-	-		
STD. DEV.	-	2.9	-	4.65	2.7	3.286	0.5	0.82	1.192	0.23	0.49	0.11	-	-		
MINIMUM	-	0.5	-	4.20	0.5	1.266	bd1	0.10	0.022	0.01	0.12	0.03	-	-		
MAXIMUM	-	10.4	-	6.50	8.8	11.997	1.8	2.74	3.882	0.86	1.66	0.45	-	-		
P.W. MEAN	-	-	-	4.49	3.2	4.551	0.5	0.75	0.975	0.15	0.45	0.10	-	-		

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
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DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

MARCH 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	1.40	bd1	bd1	bd1	bd1	1.0
2	bd1	bd1	bd1	bd1	bd1	bd1
3	0.92	bd1	bd1	bd1	bd1	0.8
4	1.10	bd1	bd1	bd1	bd1	4.9
5	1.57	bd1	bd1	bd1	bd1	10.9
6	0.66	bd1	bd1	bd1	bd1	4.7
7	1.18	bd1	bd1	bd1	bd1	11.5
8	-	-	-	-	-	-
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	1.95	0.48	bd1	bd1	0.50	4.5
12	0.90	bd1	bd1	bd1	bd1	0.9
13	1.86	bd1	0.14	bd1	bd1	11.5
14	0.68	0.70	bd1	bd1	bd1	2.4
15	1.49	0.46	bd1	bd1	bd1	2.4
16	1.00	bd1	bd1	bd1	bd1	bd1
17	0.69	bd1	0.13	bd1	bd1	bd1
18	0.77	bd1	0.39	0.25	bd1	12.4
19	0.53	bd1	bd1	bd1	bd1	bd1
20	bd1	bd1	bd1	bd1	bd1	2.5
21	0.81	bd1	bd1	bd1	bd1	1.2
22	-	-	-	-	-	-
23	1.08	bd1	bd1	bd1	bd1	1.7
24	6.37	3.60	bd1	bd1	3.20	13.2
25	bd1	bd1	bd1	bd1	bd1	bd1
26	-	-	-	-	-	-
27	bd1	bd1	bd1	bd1	bd1	bd1
28	11.37	7.50	bd1	bd1	7.02	5.0
29	3.10	1.02	bd1	bd1	1.19	1.3
30	1.55	bd1	bd1	bd1	0.58	0.9
31	4.88	2.39	bd1	bd1	2.38	4.6

bd1 - BELOW DETECTION LIMIT

NO. OBS.	26	-	-	-	-	26
A. MEAN	1.76	-	-	-	-	3.8
S.D.	2.43	-	-	-	-	4.4
MIN.	bd1	-	-	-	-	bd1
MAX.	11.37	-	-	-	-	13.2

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
1	3.4	3.1	-	7.10	1.9	0.930	bd1	1.15	0.216	0.70	0.17	0.01	-	-	2
3 [2]	4.4	3.8	-	3.20	0.8	1.629	bd1	0.15	0.125	0.03	0.17	bd1	-	-	2
6	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	2
8	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	3
12	1.8	1.2	-	4.60	1.5	0.465	bd1	0.22	0.103	0.03	0.14	0.02	-	-	3
14 [3]	15.4	1.0	-	-	4.4	16.300	bd1	2.23	2.112	0.20	0.37	0.20	-	-	3
15	-	1.1	-	-	2.2	2.528	0.5	0.81	0.792	0.12	0.58	0.08	-	-	2
16	-	7.3	-	4.60	0.4	0.381	bd1	0.11	0.018	0.02	0.06	bd1	0.004	-	2
17 [3]	2.3	1.1	-	5.70	0.7	0.398	0.6	0.30	0.013	0.06	0.96	0.02	-	1.60	2
18	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	2
19	-	0.2	-	-	1.8	0.841	2.1	-	0.013	-	-	-	-	-	2
27	9.6	4.3	-	4.30	4.7	2.377	0.3	0.40	0.109	0.06	0.31	0.07	0.024	0.66	1
28 [3]	68.1	40.0	-	4.60	7.6	4.166	0.3	1.23	1.842	0.29	0.29	0.08	0.022	0.97	1
29	-	23.7	-	4.50	2.8	1.554	bd1	0.21	0.605	0.05	0.10	0.03	0.009	-	3
30	-	7.2	-	4.50	2.9	2.200	bd1	0.45	0.469	0.06	0.19	0.07	0.019	-	1
TOTAL PRECIP 107.8 94.2															
NO. OBS.	-	14	-	-	12	12	-	11	12	11	11	11	-	-	
A. MEAN	-	6.7	-	-	2.6	2.814	-	0.66	0.535	0.15	0.30	0.05	-	-	
STD. DEV.	-	11.4	-	-	2.1	4.391	-	0.65	0.721	0.20	0.26	0.06	-	-	
MINIMUM	-	0.1	-	-	0.4	0.381	-	0.11	0.013	0.02	0.06	bd1	-	-	
MAXIMUM	-	40.0	-	-	7.6	16.300	-	2.23	2.112	0.70	0.96	0.20	-	-	
P.W. MEAN	-	-	-	-	4.6	2.783	-	0.72	1.024	0.17	0.22	0.05	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

APRIL 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	1.16	bd1	bd1	bd1	bd1	bd1
2	2.09	1.69	bd1	bd1	1.30	5.3
3	2.28	2.01	0.23	bd1	1.42	5.0
4	1.45	bd1	0.33	bd1	bd1	bd1
5	-	-	-	-	-	-
6	0.76	1.65	bd1	bd1	0.93	8.1
7	2.62	2.78	0.13	bd1	2.04	7.9
8	0.37	bd1	bd1	bd1	0.40	1.6
9	1.80	1.46	bd1	bd1	1.12	1.6
10	4.30	5.34	0.23	bd1	2.84	4.6
11	1.57	0.27	bd1	bd1	0.54	1.1
12	1.61	bd1	bd1	bd1	bd1	4.0
13	3.20	1.19	bd1	bd1	0.95	2.1
14	1.88	bd1	0.15	0.12	-	3.0
15	1.91	1.10	0.13	0.12	0.57	3.6
16	4.44	5.68	0.14	bd1	1.87	9.2
17	3.26	1.90	bd1	bd1	1.52	2.1
18	2.05	bd1	bd1	bd1	0.50	4.7
19	bd1	bd1	bd1	bd1	bd1	bd1
20	bd1	bd1	bd1	bd1	bd1	bd1
21	bd1	bd1	bd1	bd1	bd1	bd1
22	0.73	0.37	bd1	bd1	bd1	3.4
23	1.22	1.43	bd1	bd1	bd1	9.9
24	1.84	bd1	bd1	bd1	bd1	4.9
25	0.59	bd1	bd1	bd1	bd1	4.7
26	1.59	0.30	bd1	bd1	bd1	3.7
27	0.32	bd1	bd1	bd1	bd1	1.4
28	0.48	bd1	bd1	bd1	bd1	bd1
29	0.34	bd1	bd1	bd1	bd1	1.4
30	0.39	bd1	bd1	bd1	bd1	4.7

bd1 - BELOW DETECTION LIMIT

NO. OBS.	29	29	-	-	28	29
A. MEAN	1.53	0.94	-	-	0.57	3.4
S.D.	1.21	1.50	-	-	0.79	2.8
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	4.44	5.68	-	-	2.84	9.9

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

(10 g/l)															ION BAL.	PRECIP
DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE	
	STD (mm)	COLL (mm)	FIELD	LAB												
1 [2]	27.2	7.9	-	5.40	1.8	1.120	bd1	0.25	0.541	0.04	0.16	0.03	0.013	-	1	
3	-	16.8	-	4.70	2.7	2.506	bd1	0.68	0.635	0.08	0.11	0.07	0.014	-	1	
4	-	7.5	-	6.80	3.2	2.638	bd1	1.53	0.850	0.15	0.17	0.13	0.047	-	3	
7 [2]	3.0	1.8	-	6.50	3.6	3.816	0.1	1.99	0.980	0.19	0.19	0.19	0.079	1.17	1	
8	-	1.3	-	5.10	3.5	5.843	bd1	2.35	0.771	0.33	0.32	0.28	-	-	1	
9	8.6	6.1	-	5.30	2.3	2.244	bd1	0.51	0.877	0.08	0.10	0.05	0.017	-	1	
13	17.3	17.9	-	4.60	1.8	1.195	bd1	0.16	0.358	0.02	0.05	0.02	0.002	-	1	
22 [2]	18.8	5.7	-	4.70	2.6	1.594	bd1	0.69	0.277	0.10	0.18	0.05	0.012	-	1	
23	-	9.6	-	4.40	2.9	1.372	bd1	0.42	0.161	0.06	0.18	0.12	0.006	-	1	
TOTAL PRECIP	74.9	74.6														
NO. OBS.	-	9	-	9	9	9	-	9	9	9	9	9	8	-		
A. MEAN	-	8.3	-	4.87	2.7	2.481	-	0.95	0.606	0.12	0.16	0.10	0.024	-		
STD. DEV.	-	5.8	-	4.87	0.7	1.528	-	0.80	0.290	0.10	0.08	0.09	0.026	-		
MINIMUM	-	1.3	-	4.40	1.8	1.120	-	0.16	0.161	0.02	0.05	0.02	0.002	-		
MAXIMUM	-	17.9	-	6.80	3.6	5.843	-	2.35	0.980	0.33	0.32	0.28	0.079	-		
P.W. MEAN	-		-	4.74	2.5	1.911	-	0.61	0.522	0.07	0.13	0.07	0.015	-		

PRECIP TYPE

T - TRACE AMOUNT

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ALGOMA

MAY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	
1	bd1	bd1	bd1	bd1	bd1	0.6
2	0.86	bd1	bd1	bd1	bd1	1.8
3	4.53	1.70	bd1	bd1	1.31	2.4
4	9.12	2.34	bd1	bd1	2.14	6.4
5	bd1	bd1	bd1	bd1	bd1	bd1
6	1.30	bd1	bd1	bd1	bd1	1.1
7	1.52	bd1	bd1	bd1	bd1	1.6
8	3.23	1.83	bd1	bd1	0.79	9.0
9	2.66	1.76	0.15	bd1	0.74	5.6
10	0.48	bd1	bd1	bd1	bd1	bd1
11	bd1	bd1	bd1	bd1	bd1	bd1
12	1.30	bd1	bd1	bd1	bd1	bd1
13	1.04	bd1	bd1	bd1	bd1	5.3
14	2.03	bd1	bd1	bd1	bd1	2.8
15	1.91	bd1	bd1	bd1	bd1	3.7
16	1.07	bd1	bd1	bd1	bd1	bd1
17	1.38	bd1	bd1	bd1	bd1	3.9
18	1.36	bd1	bd1	bd1	bd1	0.6
19	0.89	bd1	bd1	bd1	bd1	2.6
20	3.73	1.06	bd1	bd1	0.79	5.0
21	4.72	1.97	bd1	bd1	1.35	5.1
22	8.89	2.81	bd1	bd1	1.77	13.0
23	11.16	2.79	bd1	bd1	2.01	26.2
24	2.66	0.81	bd1	bd1	0.54	5.0
25	2.68	1.04	bd1	bd1	0.68	bd1
26	bd1	bd1	bd1	0.21	bd1	bd1
27	1.65	bd1	bd1	bd1	bd1	bd1
28	1.53	0.31	bd1	bd1	bd1	0.7
29	0.95	0.48	bd1	bd1	bd1	1.1
30	bd1	bd1	bd1	bd1	bd1	0.9
31	1.07	0.28	bd1	bd1	bd1	1.1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	-	-	-	-	31
A. MEAN	2.38	-	-	-	-	3.4
S.D.	2.76	-	-	-	-	5.2
MIN.	bd1	-	-	-	-	bd1
MAX.	11.16	-	-	-	-	26.2

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
2 [3]	60.2	5.5	-	4.90	1.4	1.062	bd1	0.32	0.249	0.06	0.07	0.03	0.007	-	1
3	-	15.0	-	4.20	4.3	3.807	bd1	0.59	0.899	0.10	0.10	0.07	0.007	-	1
4	-	34.5	-	4.50	2.5	1.240	bd1	0.18	0.487	0.02	0.12	0.08	0.007	-	1
12	3.2	1.1	-	4.10	7.4	2.125	bd1	0.73	0.452	0.12	-	-	-	-	1
24 [2]	5.9	2.1	-	4.20	6.5	4.383	0.8	0.87	1.276	0.17	0.38	0.14	-	0.92	1
25	-	1.9	-	4.30	0.7	3.320	0.8	1.13	1.251	0.21	0.64	0.26	-	2.51	1
28 [2]	9.7	0.5	-	-	4.8	-	1.4	1.30	-	0.23	-	-	-	-	1
29	-	8.4	-	4.30	3.3	1.904	bd1	0.22	0.702	0.04	0.09	0.04	0.008	-	1
31 [2]	15.8	2.0	-	5.00	3.3	1.992	0.5	0.67	0.533	0.15	0.12	0.14	-	0.82	1
TOTAL PRECIP	94.8	71.0													
NO. OBS.	-	9	-	8	9	8	-	9	8	9	7	7	-	-	
A. MEAN	-	7.9	-	4.35	3.8	2.479	-	0.67	0.731	0.12	0.22	0.11	-	-	
STD. DEV.	-	11.0	-	4.60	2.2	1.215	-	0.39	0.379	0.07	0.21	0.08	-	-	
MINIMUM	-	0.5	-	4.10	0.7	1.062	-	0.18	0.249	0.02	0.07	0.03	-	-	
MAXIMUM	-	34.5	-	5.00	7.4	4.383	-	1.30	1.276	0.23	0.64	0.26	-	-	
P.W. MEAN	-		-	4.39	3.1	2.036	-	0.36	0.627	0.06	0.13	0.08	-	-	

PRECIP TYPE T - TRACE AMOUNT

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ALGOMA

JUNE 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	2.28	1.21	bd1	bd1	0.68	2.2
2	2.66	1.61	bd1	bd1	0.71	8.4
3	8.36	0.47	bd1	bd1	1.41	1.8
4	7.45	0.67	bd1	bd1	1.11	5.3
5	8.19	1.86	bd1	bd1	1.91	4.4
6	0.54	bd1	0.13	bd1	bd1	bd1
7	1.37	0.34	bd1	bd1	bd1	3.0
8	1.31	0.39	bd1	bd1	bd1	0.5
9	0.96	bd1	bd1	bd1	bd1	bd1
10	1.60	bd1	bd1	bd1	bd1	bd1
11	1.13	bd1	bd1	bd1	bd1	0.4
12	1.83	0.55	bd1	bd1	0.51	0.6
13	3.86	1.70	bd1	bd1	1.10	1.4
14	4.84	0.58	bd1	bd1	0.71	bd1
15	2.41	0.86	bd1	0.17	0.61	bd1
16	0.37	0.30	bd1	bd1	bd1	2.7
17	0.48	0.61	bd1	bd1	bd1	2.9
18	1.40	0.69	bd1	bd1	0.41	1.7
19	1.23	bd1	bd1	bd1	bd1	0.5
20	1.31	bd1	bd1	bd1	bd1	bd1
21	3.65	0.48	bd1	bd1	1.14	bd1
22	2.87	bd1	bd1	0.15	0.63	bd1
23	0.87	bd1	bd1	bd1	bd1	bd1
24	1.03	bd1	bd1	bd1	bd1	bd1
25	0.35	bd1	bd1	bd1	bd1	1.3
26	0.56	bd1	bd1	bd1	bd1	3.0
27	1.56	0.83	0.16	bd1	bd1	2.4
28	10.18	2.40	bd1	bd1	3.25	3.8
29	6.43	0.80	bd1	bd1	1.90	bd1
30	0.38	bd1	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	-	30
A. MEAN	2.72	0.54	-	-	-	1.5
S.D.	2.73	0.64	-	-	-	2.0
MIN.	0.35	bd1	-	-	-	bd1
MAX.	10.18	2.40	-	-	-	8.4

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

														ION BAL.	PRECIP
AMOUNT		pH												RATIO	
DAY	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE
1	-	10.9	-	4.30	4.6	3.674	0.5	0.39	1.314	0.07	0.04	0.04	0.005	0.89	1
2 [3]	82.3	42.2	-	3.90	6.6	2.568	bd1	0.20	0.652	0.04	0.09	0.02	0.002	-	1
3	-	44.4	-	4.60	1.7	0.531	bd1	0.07	0.237	0.01	0.03	bd1	0.002	-	1
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
7 [2]	14.6	12.5	-	5.80	1.8	2.125	bd1	0.52	0.828	0.12	0.19	0.03	0.010	-	1
8	-	1.3	-	5.10	1.1	1.018	bd1	-	0.157	-	-	-	-	-	1
9 [2]	19.9	5.5	-	4.60	2.3	2.169	bd1	0.36	0.571	0.07	0.07	0.05	0.007	-	1
11	-	12.3	-	5.20	0.5	0.398	bd1	0.06	0.140	0.01	0.14	0.02	0.002	-	1
13 [4]	98.4	0.8	-	3.50	15.3	8.544	0.7	-	1.597	-	-	-	-	-	1
14	-	69.6	-	4.90	1.5	0.930	bd1	0.20	0.413	0.04	0.15	0.02	0.002	-	1
15	-	35.6	-	4.90	1.1	0.708	bd1	0.16	0.243	0.02	0.08	0.01	0.003	-	1
16	-	0.2	-	4.50	2.5	-	0.9	-	-	-	-	-	-	-	1
17 [2]	13.2	3.9	-	5.90	3.6	3.232	bd1	1.63	1.176	0.27	0.21	0.11	0.010	-	1
18	-	6.9	-	4.60	2.5	1.815	bd1	0.75	0.912	0.12	0.17	0.08	0.006	-	1
20 [2]	7.0	2.4	-	4.60	1.5	1.062	bd1	-	0.240	-	-	-	-	-	1
21	-	3.3	-	4.20	3.2	1.062	bd1	0.33	0.238	0.04	0.02	0.02	0.004	-	1
23 [2]	37.0	0.8	-	5.10	1.7	0.930	bd1	-	0.149	-	-	-	-	-	1
24	-	34.0	-	4.30	2.7	1.904	bd1	0.09	0.520	0.02	0.05	0.02	0.001	-	1
28 [2]	49.0	45.6	-	4.20	4.7	1.904	bd1	0.23	0.847	0.04	0.02	0.04	0.008	-	1
29	-	3.7	-	4.40	2.3	1.284	bd1	0.21	0.416	0.03	0.02	0.05	0.008	-	1

TOTAL PRECIP 321.4 335.9

NO. OBS.	-	19	-	19	19	18	-	14	18	14	14	14	14	-
A. MEAN	-	17.7	-	4.33	3.2	1.992	-	0.37	0.592	0.06	0.09	0.04	0.005	-
STD. DEV.	-	20.7	-	4.14	3.3	1.871	-	0.41	0.438	0.07	0.07	0.03	0.003	-
MINIMUM	-	0.2	-	3.50	0.5	0.398	-	0.06	0.140	0.01	0.02	bd1	0.001	-
MAXIMUM	-	69.6	-	5.90	15.3	8.544	-	1.63	1.597	0.27	0.21	0.11	0.010	-
P.W. MEAN	-	-	-	4.38	2.9	1.495	-	0.22	0.526	0.04	0.08	0.02	0.004	-

PRECIP TYPE

T - TRACE AMOUNT

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ALGOMA

JULY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	3.11	0.48	bd1	0.11	0.94	5.4
2	6.26	1.88	bd1	0.53	1.89	0.8
3	12.43	2.12	bd1	0.41	2.93	4.9
4	12.63	1.15	bd1	0.09	2.45	2.8
5	2.97	0.33	bd1	0.11	0.79	bd1
6	2.30	0.70	bd1	bd1	0.86	1.3
7	8.34	2.02	bd1	bd1	2.59	3.3
8	15.02	2.44	bd1	bd1	3.65	2.1
9	1.16	0.47	bd1	bd1	0.34	2.3
10	1.73	0.71	bd1	bd1	0.47	1.6
11	4.66	1.73	bd1	bd1	1.44	3.0
12	10.38	1.06	bd1	0.07	2.29	1.4
13	1.59	0.31	bd1	bd1	0.48	bd1
14	bd1	bd1	bd1	bd1	bd1	bd1
15	0.45	0.20	bd1	bd1	bd1	0.8
16	1.68	0.20	bd1	bd1	bd1	3.2
17	1.86	0.36	bd1	bd1	0.29	bd1
18	5.30	0.84	bd1	bd1	1.12	1.0
19	1.01	0.29	bd1	bd1	0.27	0.7
20	0.70	0.26	bd1	bd1	bd1	bd1
21	bd1	0.16	bd1	bd1	bd1	bd1
22	0.35	bd1	bd1	bd1	bd1	1.4
23	1.13	0.66	bd1	bd1	0.27	1.6
24	6.24	1.95	0.20	bd1	1.15	6.3
25	3.84	0.46	bd1	bd1	0.89	0.6
26	0.31	bd1	bd1	bd1	bd1	1.1
27	0.30	bd1	bd1	bd1	bd1	bd1
28	0.48	0.16	bd1	bd1	bd1	bd1
29	1.38	0.25	bd1	bd1	0.33	1.5
30	4.58	2.18	bd1	bd1	1.38	4.8
31	10.37	2.88	0.20	bd1	2.48	9.3

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	31	31
A. MEAN	3.95	0.85	-	-	0.95	2.0
S.D.	4.27	0.85	-	-	1.04	2.2
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	15.02	2.88	-	-	3.65	9.3

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	+VE/-VE	
17	4.2	3.6	-	5.70	0.8	0.531	bd1	bd1	0.111	bd1	0.06	0.05	-	-	1
24	6.2	6.1	-	4.10	4.2	2.789	bd1	0.42	0.658	0.07	0.05	0.03	0.006	-	1
31 [2]	36.2	22.1	-	4.30	3.6	1.328	bd1	0.30	0.576	0.05	0.07	bd1	0.002	-	1
TOTAL PRECIP	46.6	31.8													
NO. OBS.	3	3	-	3	3	3	-	-	3	-	3	-	-	-	
A. MEAN	15.5	10.6	-	4.36	2.9	1.549	-	-	0.448	-	0.06	-	-	-	
STD. DEV.	17.9	10.0	-	4.41	1.8	1.145	-	-	0.295	-	0.01	-	-	-	
MINIMUM	4.2	3.6	-	4.10	0.8	0.531	-	-	0.111	-	0.05	-	-	-	
MAXIMUM	36.2	22.1	-	5.70	4.2	2.789	-	-	0.658	-	0.07	-	-	-	
P.W. MEAN			-	4.30	3.4	1.518	-	-	0.539	-	0.07	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

AUGUST 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE						GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2	
1	19.45	1.17	bd1	bd1	2.50	1.5	
2	5.45	0.63	bd1	bd1	1.10	bd1	
3	7.04	0.64	bd1	bd1	1.41	bd1	
4	1.48	0.15	bd1	bd1	0.30	bd1	
5	bd1	0.15	bd1	bd1	bd1	bd1	
6	1.61	0.46	bd1	bd1	0.39	1.4	
7	1.61	0.24	bd1	bd1	0.38	2.1	
8	3.32	0.24	bd1	0.12	0.63	2.7	
9	3.69	0.27	bd1	bd1	0.92	1.0	
10	0.38	bd1	bd1	bd1	bd1	bd1	
11	1.13	0.39	bd1	bd1	0.33	bd1	
12	2.79	0.84	bd1	bd1	0.96	bd1	
13	4.01	0.38	bd1	bd1	0.87	1.2	
14	9.10	1.57	bd1	bd1	2.04	0.8	
15	2.42	0.33	bd1	0.11	0.63	2.4	
16	bd1	bd1	bd1	bd1	bd1	bd1	
17	bd1	bd1	bd1	bd1	bd1	bd1	
18	0.42	0.17	bd1	bd1	bd1	bd1	
19	1.17	0.27	bd1	0.08	bd1	1.5	
20	2.38	0.53	bd1	0.09	0.76	1.8	
21	3.10	0.94	bd1	0.10	0.99	2.8	
22	11.95	2.75	bd1	0.16	2.15	2.8	
23	11.53	1.63	bd1	0.09	2.82	0.8	
24	0.27	0.17	bd1	bd1	bd1	bd1	
25	2.01	0.48	bd1	0.12	0.56	4.5	
26	3.94	0.26	bd1	bd1	1.05	0.6	
27	0.94	0.23	bd1	bd1	0.51	5.8	
28	2.12	0.21	0.23	bd1	0.43	2.1	
29	10.18	0.58	bd1	bd1	1.74	bd1	
30	13.18	0.78	bd1	bd1	1.92	bd1	
31	8.58	0.85	bd1	bd1	2.30	0.6	

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	31	31
A. MEAN	4.36	0.56	-	-	0.89	1.2
S.D.	4.77	0.58	-	-	0.83	1.4
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	19.45	2.75	-	-	2.82	5.8

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH												ION BAL. RATIO	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE		
1	-	13.7	-	4.40	2.6	1.682	bd1	0.27	0.532	0.04	0.30	0.01	0.003	-	1	
3	36.2	35.3	-	4.60	1.6	0.443	bd1	0.04	0.274	bd1	0.06	0.01	0.002	-	1	
6	1.9	2.0	-	4.30	2.8	1.372	bd1	0.32	0.185	0.05	0.19	bd1	0.004	-	1	
9	19.0	15.6	-	4.60	1.6	0.708	bd1	0.06	0.336	bd1	0.04	bd1	0.002	-	1	
13 [2]	5.5	0.5	-	5.90	3.7	-	1.1	-	-	-	-	-	0.010	-	1	
14	-	3.8	-	4.60	3.3	1.815	bd1	0.56	0.902	0.07	0.02	0.02	0.010	-	1	
26 [2]	7.0	4.4	-	3.50	15.9	5.268	bd1	0.34	2.762	0.06	0.11	0.04	0.004	-	1	
28	-	1.5	-	3.90	8.0	1.726	bd1	0.20	0.449	0.04	0.05	0.01	-	-	1	
29 [2]	8.3	1.0	-	4.00	6.5	-	bd1	-	-	-	-	-	0.004	-	1	
TOTAL PRECIP	77.9	77.8														
NO. OBS.	-	9	-	9	9	7	-	7	7	7	7	7	8	-		
A. MEAN	-	8.6	-	4.10	5.1	1.859	-	0.26	0.777	0.04	0.11	0.01	0.005	-		
STD. DEV.	-	11.4	-	4.01	4.6	1.594	-	0.18	0.906	0.03	0.10	0.01	0.003	-		
MINIMUM	-	0.5	-	3.50	1.6	0.443	-	0.04	0.185	bd1	0.02	bd1	0.002	-		
MAXIMUM	-	35.3	-	5.90	15.9	5.268	-	0.56	2.762	0.07	0.30	0.04	0.010	-		
P.W. MEAN	-		-	4.32	2.9	1.116	-	0.14	0.509	0.02	0.10	0.01	0.003	-		

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

SEPTEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	2.15	0.40	bd1	bd1	0.41	bd1
2	0.62	bd1	bd1	0.09	bd1	bd1
3	1.02	0.17	bd1	bd1	bd1	bd1
4	3.53	bd1	bd1	0.15	bd1	1.7
5	1.15	0.21	bd1	0.20	bd1	bd1
6	2.69	0.27	bd1	0.12	0.51	bd1
7	1.97	0.30	bd1	0.86	0.36	bd1
8	bd1	bd1	bd1	bd1	bd1	bd1
9	1.34	0.46	bd1	bd1	0.45	bd1
10	1.46	bd1	bd1	bd1	bd1	1.2
11	4.03	0.44	bd1	bd1	1.48	0.7
12	1.21	0.45	bd1	bd1	0.71	bd1
13	1.67	0.40	bd1	0.15	0.59	0.7
14	1.05	0.24	bd1	bd1	0.68	bd1
15	bd1	bd1	bd1	bd1	bd1	bd1
16	bd1	bd1	bd1	bd1	bd1	bd1
17	0.42	bd1	bd1	bd1	-	bd1
18	0.67	0.27	bd1	bd1	bd1	bd1
19	0.42	bd1	bd1	bd1	bd1	2.5
20	bd1	bd1	bd1	bd1	bd1	bd1
21	bd1	bd1	bd1	bd1	bd1	bd1
22	bd1	bd1	bd1	0.15	bd1	bd1
23	bd1	bd1	0.39	0.29	bd1	bd1
24	2.61	1.23	bd1	bd1	0.86	2.1
25	5.53	1.35	bd1	bd1	1.70	2.8
26	3.53	0.97	bd1	bd1	0.76	2.4
27	bd1	bd1	bd1	bd1	bd1	bd1
28	0.32	bd1	bd1	bd1	-	bd1
29	bd1	bd1	bd1	bd1	bd1	bd1
30	bd1	bd1	0.26	0.12	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	-	-	-	-	-
A. MEAN	1.25	-	-	-	-	-
S.D.	1.45	-	-	-	-	-
MIN.	bd1	-	-	-	-	-
MAX.	5.53	-	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
1	-	6.0	-	4.50	1.8	1.195	bd1	0.07	0.274	0.01	0.01	0.01	0.004	-	1
7	10.6	9.9	-	4.30	5.7	3.364	bd1	0.77	1.520	0.11	0.04	0.03	0.006	-	1
9 [2]	15.4	10.0	-	5.00	1.0	0.531	bd1	0.11	0.164	0.02	0.02	0.03	0.004	-	1
11	-	3.9	-	5.00	1.5	1.417	bd1	0.24	0.449	0.05	0.13	0.13	0.004	-	1
13	1.6	0.6	-	-	11.0	5.179	1.0	-	-	-	-	-	-	-	1
20	1.1	0.5	-	-	1.3	0.266	0.4	-	0.041	-	-	-	-	-	1
25	1.8	0.6	-	-	8.5	5.002	0.4	-	0.854	-	-	-	-	-	1
26 [2]	17.8	3.4	-	3.90	8.6	4.781	0.2	0.14	1.884	0.04	0.14	0.10	-	0.95	1
27	-	12.6	-	5.30	0.5	0.266	0.1	0.09	0.045	0.02	0.05	bd1	0.005	-	1
30 [2]	8.4	6.9	-	4.50	1.2	0.664	0.2	0.05	0.108	0.01	0.10	bd1	0.003	-	1
TOTAL PRECIP	56.7	54.4													
NO. OBS.	7	10	-	7	10	10	-	7	9	7	7	7	-	-	
A. MEAN	8.1	5.4	-	4.42	4.1	2.267	-	0.21	0.593	0.04	0.07	0.04	-	-	
STD. DEV.	6.9	4.4	-	4.38	4.0	2.080	-	0.25	0.684	0.04	0.05	0.05	-	-	
MINIMUM	1.1	0.5	-	3.90	0.5	0.266	-	0.05	0.041	0.01	0.01	bd1	-	-	
MAXIMUM	17.8	12.6	-	5.30	11.0	5.179	-	0.77	1.884	0.11	0.14	0.13	-	-	
P.W. MEAN			-	4.54	2.6	1.503	-	0.23	0.527	0.04	0.06	0.03	-	-	

PRECIP TYPE

T - TRACE AMOUNT

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DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

OCTOBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	
1	bd1	bd1	0.30	0.11	-	bd1
2	bd1	bd1	0.53	0.29	0.42	bd1
3	0.81	bd1	0.40	0.17	0.56	1.0
4	1.15	0.65	bd1	0.11	-	bd1
5	3.76	1.08	bd1	bd1	0.82	0.8
6	bd1	bd1	bd1	bd1	bd1	bd1
7	bd1	bd1	bd1	bd1	bd1	bd1
8	bd1	bd1	bd1	bd1	bd1	1.1
9	0.85	bd1	bd1	bd1	bd1	4.1
10	2.18	0.44	bd1	bd1	bd1	2.7
11	2.90	0.37	bd1	0.14	0.45	2.2
12	0.94	0.20	bd1	bd1	bd1	-
13	1.75	1.32	bd1	bd1	0.65	5.2
14	8.76	2.45	bd1	bd1	2.37	9.6
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	0.51	bd1	bd1	bd1	bd1	1.3
21	1.54	bd1	bd1	bd1	bd1	1.7
22	0.82	0.20	bd1	bd1	bd1	bd1
23	0.80	bd1	bd1	bd1	bd1	bd1
24	1.97	2.23	0.25	0.21	1.09	2.5
25	2.80	1.82	bd1	0.11	1.00	0.8
26	6.09	2.19	0.48	0.11	1.46	8.5
27	5.15	2.36	0.35	0.14	2.94	4.4
28	1.19	0.43	0.35	bd1	bd1	2.2
29	2.55	1.41	0.30	0.39	1.28	3.0
30	6.69	5.22	0.25	bd1	3.04	-
31	9.37	5.64	bd1	0.10	3.50	9.2

bd1 - BELOW DETECTION LIMIT

NO. OBS.	26	26	-	26	24	24
A. MEAN	2.41	1.08	-	0.07	0.82	2.5
S.D.	2.68	1.54	-	0.10	1.09	3.0
MIN.	bd1	bd1	-	bd1	bd1	bd1
MAX.	9.37	5.64	-	0.39	3.50	9.6

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

														ION BAL.	
AMOUNT		pH												RATIO	PRECIP
DAY	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE
1	-	1.5	-	4.90	1.2	0.708	0.5	0.15	0.040	0.03	0.57	0.02	-	0.99	1
5	20.8	8.1	-	4.60	0.9	0.753	0.2	0.05	0.095	0.01	0.13	bd1	0.002	-	1
6	3.8	10.9	-	4.80	0.6	0.089	0.2	0.02	bd1	bd1	0.04	bd1	0.002	-	1
14	38.1	37.6	-	4.10	4.0	1.284	0.2	0.05	0.510	bd1	0.05	0.01	0.003	-	1
17 [3]	53.4	31.3	-	4.30	1.5	1.771	0.2	0.05	0.134	bd1	0.02	bd1	0.002	-	1
18	-	5.9	-	4.70	0.5	0.398	0.1	0.03	bd1	bd1	bd1	bd1	0.004	-	1
19	-	12.3	-	4.70	1.4	1.461	0.2	0.19	0.370	0.05	0.05	0.03	0.012	0.98	1
20 [4]	22.4	5.9	-	5.00	0.6	0.221	0.1	0.03	0.035	bd1	0.08	bd1	0.009	-	1
21	-	0.9	-	4.60	1.8	-	0.3	0.32	-	0.06	0.34	0.03	-	-	1
22	-	14.3	-	4.80	0.8	1.018	0.1	0.12	0.106	0.04	0.06	0.03	0.007	0.94	2
23	-	2.4	-	5.00	0.8	0.354	0.1	0.08	bd1	0.02	0.17	0.02	0.011	-	2
24 [2]	5.4	1.2	-	4.60	5.6	-	0.3	-	-	-	-	-	-	-	2
25	-	0.7	-	4.00	9.1	-	0.4	-	-	-	-	-	-	-	2
31	0.4	0.1	-	-	10.3	-	0.7	-	-	-	-	-	-	-	1
TOTAL PRECIP 144.3 133.1															
NO. OBS.	-	14	-	13	14	10	14	11	10	-	11	-	-	-	
A. MEAN	-	9.5	-	4.50	2.8	0.806	0.3	0.10	0.129	-	0.14	-	-	-	
STD. DEV.	-	11.6	-	4.55	3.3	0.565	0.2	0.09	0.174	-	0.17	-	-	-	
MINIMUM	-	0.1	-	4.00	0.5	0.089	0.1	0.02	bd1	-	bd1	-	-	-	
MAXIMUM	-	37.6	-	5.00	10.3	1.771	0.7	0.32	0.510	-	0.57	-	-	-	
P.W. MEAN	-	-	-	4.36	2.0	1.143	0.2	0.07	0.234	-	0.06	-	-	-	

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

NOVEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	1.15	0.47	bd1	bd1	0.42	0.6
2	bd1	0.15	bd1	bd1	bd1	-
3	0.74	0.95	bd1	bd1	0.37	2.2
4	3.01	2.38	bd1	bd1	1.12	6.7
5	3.82	2.70	bd1	bd1	1.24	bd1
6	bd1	bd1	bd1	bd1	bd1	-
7	0.82	2.18	bd1	0.11	1.07	2.5
8	0.61	1.08	bd1	0.12	0.45	0.8
9	0.89	0.28	bd1	bd1	0.44	2.2
10	0.85	0.71	bd1	bd1	bd1	1.6
11	0.82	bd1	bd1	0.33	0.50	bd1
12	1.66	1.43	0.36	0.22	0.70	2.6
13	4.48	11.35	0.51	bd1	5.12	14.0
14	6.76	8.36	0.31	bd1	1.98	30.2
15	3.55	7.22	0.39	0.27	2.43	42.6
16	2.29	3.38	0.38	bd1	1.02	13.8
17	2.33	1.69	bd1	bd1	0.94	1.6
18	0.65	0.30	bd1	bd1	bd1	bd1
19	0.99	0.29	bd1	bd1	bd1	bd1
20	0.54	0.24	bd1	bd1	bd1	bd1
21	1.27	0.46	bd1	bd1	bd1	bd1
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	1.83	0.82	bd1	bd1	-	bd1
25	2.33	1.20	bd1	bd1	bd1	3.5
26	1.45	1.12	bd1	bd1	bd1	2.9
27	1.21	bd1	bd1	bd1	bd1	bd1
28	1.26	bd1	bd1	bd1	0.27	bd1
29	1.28	0.35	bd1	bd1	0.32	bd1
30	2.32	2.76	bd1	bd1	1.07	2.9

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	-	-	27	26
A. MEAN	1.75	1.85	-	-	0.72	5.0
S.D.	1.48	2.74	-	-	1.09	10.1
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	6.76	11.35	-	-	5.12	42.6

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE		
4 [2]	12.4	1.0	-	3.70	11.1	-	1.2	-	-	-	-	-	-	-	-	1
5	-	10.2	-	4.30	3.6	1.523	0.1	0.09	0.470	0.02	0.03	0.01	0.007	0.82	-	1
9	13.3	6.3	-	5.60	1.3	0.885	0.9	0.30	0.258	0.07	0.60	0.03	0.017	0.94	-	2
10	1.6	3.0	-	5.30	2.1	1.200	0.3	0.47	0.255	0.08	0.16	0.04	0.007	0.78	-	2
17 [2]	2.0	0.8	-	-	2.8	-	4.4	-	-	-	-	-	-	-	-	3
18	-	0.7	-	4.90	1.2	-	0.9	-	-	-	-	-	-	-	-	3
25 [3]	23.6	1.3	-	4.50	1.5	-	1.6	0.49	-	0.07	1.84	0.05	0.006	-	-	3
26	-	11.5	-	4.50	1.2	1.169	bd1	0.12	0.070	0.02	0.43	0.02	0.003	-	-	3
27	-	3.6	-	4.70	1.6	0.235	bd1	0.22	bd1	0.07	0.08	0.02	0.006	-	-	3
28 [3]	5.0	0.1	-	-	4.7	-	3.2	-	-	-	-	-	-	-	-	3
29	-	3.5	-	4.70	1.0	0.593	bd1	0.21	0.031	0.03	0.10	0.02	0.007	-	-	3
30	-	0.3	-	-	1.8	-	1.2	-	-	-	-	-	-	-	-	3
TOTAL PRECIP	57.9	42.3														
NO. OBS.	-	12	-	9	12	-	12	-	-	-	-	-	-	-	-	
A. MEAN	-	3.5	-	4.38	2.9	-	1.2	-	-	-	-	-	-	-	-	
STD. DEV.	-	3.9	-	4.21	2.8	-	1.4	-	-	-	-	-	-	-	-	
MINIMUM	-	0.1	-	3.70	1.0	-	bd1	-	-	-	-	-	-	-	-	
MAXIMUM	-	11.5	-	5.60	11.1	-	4.4	-	-	-	-	-	-	-	-	
P.W. MEAN	-		-	4.50	2.2	-	0.4	-	-	-	-	-	-	-	-	
PRECIP TYPE T - TRACE AMOUNT																
1 - RAIN																
2 - SNOW																
3 - MIXED																
4 - UNCERTAIN																

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

DECEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	0.72	0.65	bd1	bd1	bd1	bd1
2	1.60	0.34	bd1	bd1	0.33	0.7
3	0.39	bd1	bd1	bd1	bd1	bd1
4	0.66	0.15	bd1	bd1	bd1	bd1
5	1.44	0.20	bd1	0.15	0.68	3.7
6	2.49	2.98	bd1	bd1	1.87	3.3
7	2.65	3.24	bd1	bd1	1.85	8.5
8	2.51	0.16	bd1	bd1	-	6.3
9	-	-	-	-	-	-
10	1.03	bd1	bd1	bd1	bd1	bd1
11	-	-	-	-	-	-
12	1.97	0.75	bd1	bd1	0.45	1.1
13	2.49	1.59	bd1	bd1	1.09	2.0
14	1.85	0.76	bd1	bd1	bd1	0.9
15	0.83	bd1	bd1	bd1	0.37	bd1
16	0.75	bd1	bd1	bd1	bd1	3.7
17	0.33	bd1	bd1	bd1	bd1	2.7
18	bd1	bd1	bd1	bd1	bd1	bd1
19	0.63	0.16	bd1	bd1	bd1	bd1
20	2.28	1.64	bd1	bd1	0.78	5.7
21	4.96	2.76	bd1	bd1	1.55	8.8
22	4.15	2.35	bd1	bd1	1.25	1.0
23	2.29	1.69	bd1	bd1	0.70	2.1
24	1.49	0.68	bd1	bd1	0.35	1.0
25	1.25	0.48	bd1	bd1	bd1	0.9
26	1.89	1.51	bd1	0.68	0.31	5.0
27	4.32	2.81	bd1	0.09	1.28	6.9
28	2.12	0.85	bd1	bd1	0.50	3.8
29	1.73	0.72	bd1	bd1	0.29	3.1
30	2.88	1.14	bd1	bd1	0.69	4.6
31	4.38	1.90	bd1	bd1	1.16	27.9

bd1 - BELOW DETECTION LIMIT

NO. OBS.	29	29	-	-	28	29
A. MEAN	1.93	1.02	-	-	0.55	3.6
S.D.	1.29	1.02	-	-	0.59	5.4
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	4.96	3.24	-	-	1.87	27.9

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
1 [2]	13.1	11.0	-	4.40	1.2	1.483	bd1	0.10	0.117	0.01	0.12	0.04	0.002	-	2
4	-	0.9	-	4.70	1.6	-	bd1	0.51	-	0.09	0.47	0.04	-	-	2
6 [2]	2.4	0.2	-	-	20.9	-	3.7	-	-	-	-	-	-	-	2
7	-	1.5	-	4.00	4.9	-	bd1	0.49	-	0.05	0.36	0.09	0.007	-	2
12 [3]	25.2	1.3	-	4.20	4.0	-	bd1	0.40	-	0.08	0.44	0.08	-	-	2
13	-	13.6	-	4.60	1.4	1.430	bd1	0.07	0.382	0.01	0.08	0.01	0.001	-	2
14	-	9.6	-	4.50	1.2	2.010	bd1	0.08	0.370	0.03	0.05	0.01	0.002	-	2
19 [3]	10.4	0.3	-	-	1.9	-	0.9	-	-	-	-	-	-	-	2
20	-	6.4	-	4.40	1.0	2.231	0.5	0.17	0.241	0.03	0.08	0.02	0.005	0.96	2
21	-	0.1	-	-	3.2	-	bd1	-	-	-	-	-	-	-	2
23 [3]	20.5	1.9	-	4.90	0.9	-	0.7	0.64	-	0.10	0.40	0.05	0.012	-	2
24	-	7.7	-	4.80	0.6	0.465	0.5	0.13	0.015	0.03	0.13	0.01	0.003	0.92	2
25	-	2.0	-	4.70	0.5	1.483	0.6	0.29	0.045	0.05	0.19	0.02	0.009	0.97	2
26 [4]	13.6	0.8	-	4.50	1.6	-	0.9	-	-	-	-	-	-	-	2
27	-	5.4	-	4.30	0.9	2.931	bd1	0.05	0.201	bd1	0.08	0.02	0.002	-	2
28	-	3.0	-	4.40	1.0	1.873	bd1	0.08	0.118	0.01	0.26	0.01	0.003	-	2
29	-	2.0	-	4.70	0.7	-	bd1	0.55	-	0.11	0.24	0.03	0.013	-	2
30 [2]	27.7	4.8	-	4.70	bd1	1.217	bd1	0.18	0.003	0.02	0.19	0.02	0.008	-	2
31	-	12.8	-	4.50	bd1	1.713	bd1	0.09	0.028	0.02	0.07	bd1	0.003	-	2
TOTAL PRECIP	112.9	85.3													
NO. OBS.	-	19	-	16	19	-	-	15	-	15	15	15	-	-	
A. MEAN	-	4.5	-	4.46	2.5	-	-	0.26	-	0.04	0.21	0.03	-	-	
STD. DEV.	-	4.5	-	4.66	4.6	-	-	0.21	-	0.04	0.14	0.03	-	-	
MINIMUM	-	0.1	-	4.00	bd1	-	-	0.05	-	bd1	0.05	bd1	-	-	
MAXIMUM	-	13.6	-	4.90	20.9	-	-	0.64	-	0.11	0.47	0.09	-	-	
P.W. MEAN	-	-	-	4.49	1.0	-	-	0.14	-	0.03	0.13	0.02	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

APPENDIX 3

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS IN AIR AND PRECIPITATION AT CHALK RIVER

CHALK RIVER

JULY 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	3.65	.42	bd1	bd1	1.29	4.1
2	.47	bd1	bd1	bd1	bd1	bd1
3	1.46	bd1	bd1	bd1	.54	9.4
4	2.07	bd1	bd1	bd1	.76	8.3
5	2.20	.40	bd1	bd1	.74	1.6
6	.51	bd1	bd1	bd1	bd1	5.4
7	1.60	.70	bd1	.12	.93	4.0
8	2.93	.54	bd1	.18	1.51	3.2
9	1.25	bd1	bd1	bd1	.90	4.4
10	3.03	.46	bd1	.16	1.43	4.0
11	1.17	bd1	bd1	bd1	.59	1.0
12	.28	bd1	bd1	bd1	bd1	bd1
13	1.28	bd1	bd1	.10	.59	2.7
14	4.33	.93	.33	.11	1.65	2.4
15	12.24	.73	bd1	.11	2.62	bd1
16	1.03	bd1	.31	.08	.48	1.3
17	.92	bd1	bd1	bd1	.42	.4
18	1.48	bd1	bd1	bd1	.51	11.0
19	8.08	1.17	bd1	.08	2.08	5.5
20	1.16	bd1	.30	bd1	.47	2.6
21	1.88	bd1	bd1	bd1	.91	2.4
22	2.05	bd1	bd1	bd1	.92	bd1
23	1.07	bd1	bd1	.09	.62	1.7
24	.87	bd1	bd1	.09	.72	2.6
25	6.75	.68	bd1	.13	2.18	2.3
26	2.80	bd1	bd1	bd1	1.01	.7
27	5.65	.58	bd1	.13	2.14	.6
28	.36	bd1	.57	.28	bd1	bd1
29	7.36	.33	bd1	bd1	1.84	1.4
30	1.71	bd1	bd1	bd1	.91	.6
31	1.37	.28	bd1	bd1	1.06	2.3

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	-	-	-	31	31
A. MEAN	2.68	-	-	-	.96	2.8
S.D.	2.72	-	-	-	.69	2.8
MIN.	.28	-	-	-	bd1	bd1
MAX.	12.24	-	-	-	2.62	11.0

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE		
1	1.2	1.3	-	-	6.7	-	.4	.89	-	.14	.23	.28	-	-	-	1
5	6.4	5.9	-	3.80	10.4	5.091	.4	.65	1.285	.09	.23	.32	.030	.93	-	1
7	7.4	6.8	4.00	4.20	3.7	2.833	.1	.54	.822	.07	.08	.08	.017	1.17	-	1
8	2.0	2.0	-	3.90	7.4	-	.1	.42	-	.06	.21	.16	.027	-	-	1
10	2.8	2.6	-	4.30	3.4	-	.1	.40	-	.06	.17	.14	.013	-	-	1
14	4.6	3.9	-	4.00	6.0	5.711	.4	1.05	1.241	.14	.31	.23	.017	1.11	-	1
15	5.6	5.2	-	4.60	1.9	1.040	.1	.40	.265	.04	.08	.12	.011	1.20	-	1
16	24.6	25.1	4.70	4.80	.7	.469	bd1	.20	.174	.02	.08	.06	.008	-	-	1
17	1.4	1.3	-	-	1.7	-	2.1	.65	-	.08	1.68	.46	-	-	-	1
18	.8	.3	-	-	5.1	-	.6	1.11	-	.18	-	-	-	-	-	1
20	18.0	16.9	4.20	4.30	2.4	1.381	bd1	.23	.385	.02	.07	.06	.005	-	-	1
22	3.6	3.3	-	4.90	1.5	.540	.6	.19	.343	.02	.70	.34	.019	1.40	-	1
23	1.4	1.3	-	-	1.1	-	.7	.16	-	.02	.91	.45	-	-	-	1
25	5.4	5.2	-	4.20	5.0	3.099	.1	.59	1.102	.14	.88	.21	.016	1.32	-	1
26	10.0	10.4	4.25	4.60	1.0	.575	.2	.17	.301	.02	.09	.12	.011	1.67	-	1
27	2.2	2.6	-	4.70	3.5	1.815	.3	.51	1.301	.07	.22	.21	.142	1.24	-	1
28	31.2	31.3	4.10	4.40	1.5	.974	.2	.14	.176	.02	.12	.04	.004	1.24	-	1
30	3.6	3.9	-	4.50	1.2	.398	.1	.18	.176	.02	.10	.06	.008	1.63	-	1
TOTAL PRECIP 132.2 129.3																
NO. OBS.	18	18	-	14	18	-	18	18	-	18	17	17	14	-	-	
A. MEAN	7.3	7.2	-	4.25	3.6	-	.4	.47	-	.07	.36	.20	.023	-	-	
STD. DEV.	8.6	8.7	-	4.36	2.7	-	.5	.31	-	.05	.44	.13	.035	-	-	
MINIMUM	.8	.3	-	3.80	.7	-	bd1	.14	-	.02	.07	.04	.004	-	-	
MAXIMUM	31.2	31.3	-	4.90	10.4	-	2.1	1.11	-	.18	1.68	.46	.142	-	-	
P.W. MEAN			-	4.34	2.5	-	.2	.31	-	.04	.19	.11	.012	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

NOTE: DAY ()-NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

AUGUST 1980

AIR CONCENTRATIONS (10^{-6}gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SC_2
1	.31	bd1	bd1	bd1	* .47	2.9
2	3.13	.35	bd1	.09	* 1.50	7.9
3	2.13	.34	bd1	.10	* 1.19	2.5
4	1.43	bd1	bd1	bd1	* .89	4.1
5	9.13	.70	bd1	.11	* 2.27	2.1
6	4.43	.76	bd1	.12	* 1.80	1.1
7	2.72	.44	bd1	bd1	* .99	1.4
8	5.54	.40	bd1	bd1	* 1.57	1.5
9	3.63	bd1	bd1	bd1	* .70	4.6
10	.72	bd1	bd1	bd1	bd1	1.8
11	4.70	.48	bd1	.13	1.71	2.8
12	.26	bd1	bd1	bd1	bd1	bd1
13	.96	bd1	bd1	bd1	.38	6.9
14	4.06	.37	bd1	bd1	1.20	2.4
15	.42	bd1	bd1	bd1	bd1	1.0
16	bd1	bd1	bd1	bd1	bd1	.8
17	.39	bd1	bd1	bd1	bd1	3.2
18	4.58	.94	bd1	bd1	1.50	-
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	16.78	.81	bd1	bd1	4.90	3.9
27	2.21	bd1	bd1	bd1	.88	2.1
28	.48	bd1	bd1	bd1	bd1	1.5
29	1.36	1.05	bd1	.12	.63	bd1
30	10.05	1.39	bd1	.18	bd1	4.6
31	7.65	.34	bd1	.94	1.79	6.2

bd1 - BELOW DETECTION LIMIT

NO. OBS.	24	24	-	-	24	-
A. MEAN	3.63	.35	-	-	1.02	-
S.D.	3.98	.41	-	-	1.09	-
MIN.	bd1	bd1	-	-	bd1	-
MAX.	16.78	1.39	-	-	4.90	-

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3}gl^{-1})

DAY	AMOUNT		pH		SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE	TYPE
3	4.0	3.3	-	4.20	3.7	.885	.2	.37	.529	.07	.15	.12	.006	1.31	1
5	2.8	2.6	-	4.40	2.2	1.372	.2	.26	.666	.03	.14	.16	.008	1.37	1
7	4.0	3.3	-	3.90	7.7	4.161	.4	.54	1.154	.10	.23	.19	.011	1.01	1
8	13.4	13.4	4.30	4.40	1.9	1.461	.3	.33	.528	.04	.12	.11	.007	1.37	1
11	3.8	3.3	-	4.90	1.8	1.372	.2	.70	.482	.08	.12	.14	.020	1.35	1
13	11.2	11.1	3.60	4.00	5.3	4.471	.3	.52	1.017	.08	.07	.12	.012	1.02	1
14	28.6	27.4	4.20	4.40	2.0	.841	.1	.17	.201	.02	.03	.03	.006	1.10	1
18	1.6	.3	-	-	4.2	-	.3	.80	-	.17	.44	.70	-	-	1
27	4.8	3.9	-	3.70	13.5	2.302	.2	.42	1.970	.06	.16	.13	.032	1.07	1
30	13.5	13.5	4.30	4.40	5.3	1.240	.1	.28	1.301	.04	.17	.07	.072	1.03	1
31	5.6	5.5	-	4.50	2.5	.930	.2	.20	.590	.03	.16	.08	.002	1.19	1
TOTAL PRECIP	93.3	87.6													
NO. OBS.	11	11	-	10	11	10	11	11	10	11	11	11	10	10	
A. MEAN	8.5	8.0	-	4.16	4.6	1.904	.2	.42	.844	.07	.16	.17	.018	1.18	
STD. DEV.	7.9	7.9	-	4.24	3.5	1.340	.1	.20	.521	.04	.11	.18	.021	.15	
MINIMUM	1.6	.3	-	3.70	1.8	.841	.1	.17	.201	.02	.03	.03	.002	1.01	
MAXIMUM	28.6	27.4	-	4.90	13.5	4.471	.4	.80	1.970	.17	.44	.70	.072	1.37	
P.W. MEAN			-	4.23	3.8	1.701	.2	.33	.708	.05	.11	.10	.019		

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

NOTE: DAY ()-NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

SEPTEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	4.21	bd1	bd1	bd1	1.07	.7
2	3.42 *	.39	bd1	bd1	bd1	2.2
3	7.72	bd1	bd1	bd1	bd1	1.6
4	5.42 *	.84	bd1	bd1	.81	1.6
5	3.42 *	.43	bd1	bd1	-	1.3
6	2.81 *	.32	bd1	bd1	-	1.3
7	.90	bd1	bd1	bd1	bd1	1.0
8	1.35	bd1	bd1	bd1	bd1	7.6
9	1.08	bd1	bd1	bd1	bd1	1.9
10	.54	bd1	bd1	bd1	bd1	2.0
11	.64	bd1	bd1	bd1	bd1	2.6
12	bd1	bd1	bd1	bd1	bd1	1.5
13	.71	bd1	bd1	bd1	bd1	1.9
14	bd1	bd1	bd1	bd1	bd1	1.9
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	1.77	bd1	bd1	bd1	bd1	4.5
23	.21	bd1	bd1	bd1	bd1	bd1
24	1.20	1.14	bd1	.09	.37	4.8
25	2.91	3.58	bd1	.17	1.16	3.0
26	.59	bd1	bd1	bd1	bd1	1.9
27	.89	bd1	bd1	bd1	bd1	1.3
28	.54	bd1	bd1	bd1	bd1	1.0
29	2.43	.63	bd1	bd1	.55	5.9
30	3.94	.76	bd1	bd1	-	4.8

bd1 - BELOW DETECTION LIMIT

NO. OBS.	23	23	-	-	-	23
A. MEAN	2.03	.35	-	-	-	2.5
S.D.	1.96	.78	-	-	-	1.8
MIN.	bd1	bd1	-	-	-	bd1
MAX.	7.72	3.58	-	-	-	7.6

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE	TYPE
1	.9	.3	-	-	3.8	bd1	1.8	-	.006	-	1.59	1.25	-	-	1
2	9.8	8.5	-	4.90	1.5	.664	.4	.16	.451	.02	.34	.52	.005	1.37	1
9	14.2	13.7	-	4.10	3.2	2.346	.2	.36	.388	.05	.17	.16	.002	1.21	1
13	19.6	18.6	3.98	4.00	3.8	1.771	.1	.20	.470	.02	.04	.06	.003	1.28	1
17	15.2	15.0	-	4.00	5.0	1.815	.1	.23	.733	.02	.16	.07	.006	1.18	1
21	2.2	.8	-	3.70	13.4	-	.4	-	-	-	.25	.39	.045	-	1
22	5.8	5.9	-	5.20	2.7	1.195	.2	.51	.720	.05	.19	.13	.041	1.06	1
25	19.0	17.9	-	4.40	1.9	1.726	.1	.30	.318	.03	.08	.04	.014	1.15	1
26	2.0	2.0	-	4.70	2.9	-	.5	-	-	-	.42	.30	.030	-	1
27	9.0	8.8	-	4.80	1.8	.885	.1	.21	.416	.03	.09	.05	.004	1.05	1
29	2.0	2.3	-	3.70	10.4	-	.6	1.61	-	.28	.35	.28	-	-	1
30	9.8	9.1	-	3.80	7.7	4.914	.2	.63	1.451	.10	.09	.07	.007	1.16	1
TOTAL PRECIP 109.5 102.9															
NO. OBS.	12	12	-	11	12	-	12	-	-	-	12	12	10	-	
A. MEAN	9.1	8.6	-	4.07	4.8	-	.4	-	-	-	.31	.28	.016	-	
STD. DEV.	6.7	6.6	-	4.13	3.7	-	.5	-	-	-	.42	.34	.017	-	
MINIMUM	.9	.3	-	3.70	1.5	-	.1	-	-	-	.04	.04	.002	-	
MAXIMUM	19.6	18.6	-	5.20	13.4	-	1.8	-	-	-	1.59	1.25	.045	-	
P.W. MEAN	-	-	-	4.13	3.8	-	.2	-	-	-	.15	.14	.009	-	

PRECIP TYPE T - TRACE AMOUNT
 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
 IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

OCTOBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	
1	9.89	2.26	bd1	.17	.68	3.2
2	2.12	bd1	bd1	bd1	bd1	1.1
3	.59	bd1	bd1	bd1	bd1	1.1
4	2.97	bd1	bd1	bd1	-	bd1
5	1.22	bd1	bd1	bd1	-	bd1
6	-	-	-	-	-	-
7	5.23	2.76	bd1	bd1	1.83	3.2
8	1.96	1.24	bd1	bd1	.74	3.7
9	.60	bd1	bd1	bd1	bd1	1.5
10	1.43	1.23	bd1	bd1	.54	4.9
11	4.33	1.96	bd1	.13	1.23	4.5
12	.43	bd1	bd1	bd1	bd1	1.7
13	bd1	bd1	bd1	bd1	bd1	1.3
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	.83	bd1	bd1	bd1	bd1	5.2
21	.61	bd1	bd1	bd1	bd1	2.4
22	.34	bd1	bd1	bd1	bd1	5.1
23	bd1	bd1	bd1	.12	bd1	2.1
24	1.18	2.07	bd1	.65	.73	5.2
25	1.30	.84	bd1	.14	.55	3.1
26	.22	bd1	bd1	bd1	bd1	1.8
27	1.97	bd1	bd1	bd1	bd1	4.7
28	bd1	bd1	bd1	bd1	bd1	bd1
29	-	-	-	-	-	-
30	-	-	-	-	-	-
31	1.34	bd1	bd1	bd1	bd1	1.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH		SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE		
1	14.1	14.0	-	4.30	3.4	1.594	.1	.30	.564	.05	.10	.07	.003	1.07		1
2	.8	.3	-	-	7.1	-	.5	-	-	-	-	-	-	-		1
4	18.1	17.6	-	4.60	1.3	.885	.1	.18	.109	.02	.15	.09	.009	1.11		1
6	4.0	3.6	-	6.90	2.9	2.479	.3	.35	3.564	.07	.24	.37	-	1.58		1
7	6.0	5.9	-	6.60	5.4	3.984	.3	1.98	1.086	.30	.24	.23	.015	.97		1
8	3.6	3.3	-	6.20	4.1	2.966	.5	.96	1.347	.22	.39	.40	.007	1.08		1
11	10.6	11.1	-	4.70	2.3	1.549	.2	.52	.532	.11	.23	.23	.004	1.27		1
12	.9	.3	-	-	4.5	-	1.8	.42	-	.06	-	-	-	-		1
17	17.6	17.6	-	4.30	2.4	1.505	.3	.31	.144	.04	.11	.05	.004	1.00		1
18	1.0	1.6	-	5.70	-	-	-	-	-	-	.18	.18	-	-		1
20	.8	.3	-	-	-	-	-	-	-	-	.71	1.36	-	-		2
21	1.6	1.3	-	5.80	-	-	-	-	-	-	.64	1.21	-	-		1
22	.8	.7	-	5.00	-	-	-	-	-	-	.27	.25	-	-		1
25	29.2	28.8	-	5.10	.4	.310	.2	.19	.027	.02	.08	.10	.005	1.42		1
31	5.0	1.6	-	4.90	2.1	.930	1.0	-	.185	-	.51	.69	-	-		1

TOTAL PRECIP 114.1 108.0

NO. OBS. 15 15
 A. MEAN 7.6 7.2
 STD. DEV. 8.6 8.7
 MINIMUM .8 .3
 MAXIMUM 29.2 28.8
 P.W. MEAN

PRECIP TYPE
 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

T - TRACE AMOUNT

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
 IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

NOVEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁻²	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	.44	bd1	bd1	bd1	bd1	1.0
2	.59	bd1	bd1	bd1	bd1	2.6
3	2.19	1.23	bd1	bd1	.73	11.6
4	.74	bd1	bd1	bd1	bd1	4.0
5	.74	bd1	bd1	bd1	bd1	9.6
6	1.01	.58	bd1	bd1	.41	2.4
7	1.88	.51	bd1	bd1	.44	5.6
8	1.13	.46	bd1	.11	bd1	10.8
9	1.41	.73	bd1	bd1	.55	2.6
10	.29	bd1	bd1	bd1	bd1	.8
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	.63	bd1	bd1	bd1	bd1	.9
18	1.03	bd1	bd1	bd1	bd1	1.3
19	1.64	.54	bd1	bd1	.51	4.7
20	4.37	8.43	bd1	.10	2.28	-
21	7.46	4.06	bd1	bd1	2.34	25.0
22	2.07	2.92	bd1	bd1	1.01	7.6
23	3.52	4.52	bd1	.09	1.74	22.8
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	-	-	-	-	-	-
28	-	-	-	-	-	-
29	-	-	-	-	-	-
30	-	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} g l^{-1})

DAY	AMOUNT		pH												ION BAL.	
	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁻²	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	RATIO	PRECIP TYPE
4	7.8	7.2	-	4.50	3.3	2.249	.3	.67	.637	.06	.19	.15	.011	1.03	1	1
6	4.6	4.6	-	4.60	3.4	3.448	.5	.88	.849	.13	.25	.33	.010	1.04	1	1
8	4.6	4.6	-	4.50	2.8	1.673	.4	.42	.558	.05	.24	.32	.009	1.09	3	3
9	1.6	2.0	-	4.50	6.0	-	1.7	.96	-	.14	.95	1.16	.008	-	3	3
12	5.3	4.9	-	4.90	.8	.425	.3	.21	.019	.03	.18	.14	.016	1.19	2	2
13	7.8	7.8	-	4.30	1.6	3.183	.2	.25	.466	.03	.08	.09	.007	1.07	2	2
21	-	1.8	-	3.80	8.7	-	1.4	1.83	-	.20	.59	.46	-	-	1	1
23	1.4	2.0	-	3.90	5.7	-	.7	.53	-	.08	.31	.29	.041	-	1	1
24	3.0	2.1	-	4.60	5.0	3.927	3.0	.64	1.105	.11	1.81	1.74	-	1.00	2	2
25	.5	T	-	-	-	-	-	-	-	-	-	-	-	-	2	2
26	1.0	1.3	-	4.40	3.6	-	.4	-	-	-	-	-	.007	-	2	2
28	10.7	10.3	-	4.50	.8	1.638	.1	.13	.076	.01	.02	bd1	.027	-	2	2
29	1.5	2.0	-	4.50	2.5	1.682	.5	-	.419	-	.52	.21	-	-	2	2
TOTAL PRECIP					49.8	50.6										
NO. OBS.	12	13	-	12	12	-	12	10	-	10	11	11	-	-	-	-
A. MEAN	4.2	3.9	-	4.30	3.7	-	.8	.65	-	.08	.47	.44	-	-	-	-
STD. DEV.	3.3	3.0	-	4.35	2.3	-	.8	.50	-	.06	.52	.53	-	-	-	-
MINIMUM	.5	T	-	3.80	.8	-	.1	.13	-	.01	.02	bd1	-	-	-	-
MAXIMUM	10.7	10.3	-	4.90	8.7	-	3.0	1.83	-	.20	1.81	1.74	-	-	-	-
P.W. MEAN	-	-	-	4.46	2.4	-	.5	.42	-	.05	.28	.28	-	-	-	-

PRECIP TYPE
 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

T - TRACE AMOUNT

NOTE: DAY ()-NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
 IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

DECEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.58	.62	bd1	bd1	.46	5.4
2	.75	bd1	bd1	bd1	bd1	1.0
3	.79	bd1	bd1	.14	bd1	11.2
4	.65	bd1	bd1	.14	bd1	3.3
5	.67	.28	bd1	.26	bd1	1.1
6	1.81	.41	bd1	.32	bd1	40.2
7	1.18	1.66	bd1	.17	.53	5.7
8	3.62	.67	bd1	bd1	bd1 *	4.4
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	-	-	-	-	-	-
15	1.17	.57	bd1	.14	bd1	10.5
16	.60	.48	.32	.20	bd1	2.8
17	1.56	1.08	bd1	.24	bd1	9.1
18	1.18	.52	.38	.23	bd1	9.2
19	.75	.36	1.21	.55	bd1	5.3
20	1.60	.99	.87	.50	bd1	11.2
21	2.92	.46	bd1	.12	.39	37.0
22	3.36	2.11	bd1	.12	.96	17.0
23	4.37	3.47	bd1	.13	1.41	13.8
24	.79	bd1	bd1	.11	bd1	9.5
25	1.06	.42	.39	.21	bd1	3.8
26	1.69	1.27	bd1	bd1	.58	4.3
27	2.59	1.39	bd1	.14	.55	10.7
28	6.01	3.81	bd1	.13	1.60	31.1
29	4.24	1.81	bd1	.25	.88	7.1
30	1.04	.68	1.81	1.10	bd1	1.4
31	.31	.69	1.08	.30	bd1	2.3

bd1 - BELOW DETECTION LIMIT

NO. OBS.	25	25	-	25	-	25
A. MEAN	1.85	.95	-	.22	-	10.3
S.D.	1.46	.99	-	.23	-	10.6
MIN.	.31	bd1	-	bd1	-	1.0
MAX.	6.01	3.81	-	1.10	-	40.2

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE	TYPE
1	2.8	2.6	-	4.30	1.5	4.028	.5	-	.577	-	.26	.15	.049	-	2
2	19.1	10.6	-	5.60	.5	.575	.4	.17	.149	.01	.30	.32	.013	1.21	2
7	5.4	4.6	-	4.20	4.3	2.966	.8	.38	.701	.04	.56	.40	.013	.99	3
8	10.1	10.6	-	5.00	1.8	.531	.5	.26	.301	.03	.40	.28	.025	1.11	1
10	1.5	.8	-	4.70	1.7	1.638	.8	-	.410	-	-	-	-	-	2
12	9.6	6.8	-	4.60	.8	1.018	.1	.19	.137	.02	.08	.04	.015	1.29	2
13	2.2	1.3	-	4.90	1.4	1.107	.4	-	.395	-	-	-	-	-	2
14	1.4	1.3	-	5.10	1.1	.606	.6	-	.281	-	-	-	-	-	2
16	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	2
17	3.1	-	-	-	-	-	-	-	-	-	-	-	-	-	2
22	4.2	2.8	-	4.30	.9	3.966	1.1	.44	.175	.04	.65	.34	.081	1.08	2
23	2.5	1.6	-	5.30	6.4	4.940	1.2	2.13	.496	.11	1.50	2.33	-	1.10	2
25	.4	.7	-	-	-	-	-	-	-	-	-	-	-	-	2
28	1.1	1.6	-	4.40	2.4	3.294	.8	-	.564	-	-	-	-	-	2
TOTAL PRECIP		65.2 45.3													
NO. OBS.	14	12	-	11	11	11	11	-	11	-	-	-	-	-	
A. MEAN	4.7	3.8	-	4.58	2.1	2.243	.7	-	.381	-	-	-	-	-	
STD. DEV.	5.1	3.6	-	4.67	1.8	1.631	.3	-	.190	-	-	-	-	-	
MINIMUM	.4	.7	-	4.20	.5	.531	.1	-	.137	-	-	-	-	-	
MAXIMUM	19.1	10.6	-	5.60	6.4	4.940	1.2	-	.701	-	-	-	-	-	
P.W. MEAN	-	-	-	4.70	1.5	1.532	.5	-	.285	-	-	-	-	-	

PRECIP TYPE
 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

T - TRACE AMOUNT

NOTE: DAY ()-NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
 IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

JANUARY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	SO ₄ ⁼	NO ₃ ⁻	PARTICULATE			GAS
			Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	bd1	bd1	0.84	bd1	bd1	11.1
2	1.20	bd1	0.68	0.25	0.40	15.1
3	1.11	bd1	0.24	0.07	0.38	3.0
4	bd1	bd1	0.17	bd1	bd1	2.7
5	1.63	0.68	0.16	0.11	0.54	22.0
6	5.05	3.62	bd1	0.10	1.75	76.1
7	bd1	bd1	bd1	bd1	bd1	9.1
8	bd1	bd1	bd1	bd1	bd1	18.0
9	1.71	1.15	bd1	0.11	0.54	72.0
10	bd1	bd1	bd1	bd1	bd1	47.9
11	bd1	bd1	bd1	bd1	bd1	9.9
12	3.17	1.07	0.23	0.24	0.58	40.1
13	5.30	2.56	0.29	0.50	1.06	40.7
14	6.32	3.59	bd1	0.35	1.31	43.6
15	1.65	0.59	bd1	bd1	0.41	26.7
16	3.37	0.76	bd1	0.08	0.61	11.1
17	1.15	0.38	bd1	bd1	bd1	19.1
18	2.31	0.61	bd1	bd1	0.50	16.5
19	2.32	0.33	bd1	bd1	0.44	11.4
20	1.04	bd1	bd1	bd1	bd1	1.3
21	1.03	0.34	bd1	bd1	bd1	13.7
22	bd1	bd1	bd1	bd1	bd1	8.6
23	1.34	0.32	bd1	bd1	bd1	3.5
24	1.00	bd1	bd1	bd1	bd1	20.0
25	3.33	2.04	0.17	0.07	1.27	33.4
26	2.60	1.52	0.19	bd1	1.02	19.6
27	1.41	bd1	0.20	bd1	bd1	6.0
28	1.00	bd1	0.20	bd1	bd1	7.8
29	2.03	bd1	bd1	0.06	bd1	27.3
30	1.35	0.26	bd1	0.07	0.36	12.2
31	0.86	0.31	bd1	bd1	bd1	11.2

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	31
A. MEAN	1.72	0.65	-	-	-	21.3
S.D.	1.62	1.01	-	-	-	18.8
MIN.	bd1	bd1	-	-	-	1.3
MAX.	6.32	3.62	-	-	-	76.1

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
1	5.0	2.5	-	-	-	-	-	-	-	-	-	-	-	-	2
6	12.0	7.5	-	4.20	0.6	4.086	0.3	0.19	0.099	0.02	0.11	0.08	0.015	1.01	2
9	2.0	1.3	-	4.10	1.6	6.034	0.6	-	0.283	-	-	-	-	-	2
13	0.5	0.8	-	-	2.5	10.195	1.3	-	0.318	-	-	-	-	-	2
17	0.6	0.2	-	-	6.4	8.597	1.3	-	0.886	-	-	-	-	-	2
22	1.6	1.6	-	3.90	5.8	3.679	0.6	0.51	0.542	0.08	0.33	0.20	-	1.05	2
25	0.2	0.3	-	-	31.3	43.201	11.5	-	5.542	-	-	-	-	-	2
TOTAL PRECIP	21.9	14.2													
NO. OBS.	7	7	-	-	6	6	6	-	6	-	-	-	-	-	
A. MEAN	3.1	2.0	-	-	8.0	12.632	2.6	-	1.278	-	-	-	-	-	
STD. DEV.	4.2	2.5	-	-	11.6	15.188	4.4	-	2.106	-	-	-	-	-	
MINIMUM	0.2	0.2	-	-	0.6	3.679	0.3	-	0.099	-	-	-	-	-	
MAXIMUM	12.0	7.5	-	-	31.3	43.201	11.5	-	5.542	-	-	-	-	-	
P.W. MEAN			-	-	1.8	5.082	0.6	-	0.262	-	-	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

FEBRUARY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	1.58	1.00	bd1	bd1	0.72	13.7
2	2.49	1.20	bd1	0.12	0.73	18.7
3	2.04	0.47	bd1	0.10	0.39	50.7
4	2.55	1.37	bd1	0.11	0.69	46.8
5	2.88	1.97	bd1	0.13	0.78	75.0
6	2.26	0.65	bd1	bd1	0.86	52.3
7	1.19	1.31	bd1	bd1	0.62	18.8
8	1.59	1.13	bd1	bd1	0.73	9.4
9	bd1	0.75	bd1	bd1	bd1	29.5
10	2.72	2.76	bd1	bd1	1.35	40.3
11	1.30	0.62	bd1	bd1	0.45	26.7
12	bd1	0.44	bd1	bd1	bd1	15.6
13	1.27	1.58	bd1	bd1	0.63	32.9
14	2.47	1.64	bd1	0.07	0.77	40.3
15	1.78	1.74	bd1	0.07	0.71	91.5
16	1.14	0.70	bd1	bd1	0.55	38.0
17	5.26	2.64	bd1	bd1	2.13	18.0
18	5.32	2.46	bd1	bd1	1.80	13.2
19	4.17	2.86	0.24	0.08	1.70	14.5
20	bd1	0.39	bd1	bd1	0.61	3.5
21	bd1	bd1	bd1	bd1	bd1	bd1
22	bd1	bd1	bd1	bd1	bd1	3.3
23	1.54	0.73	0.25	0.10	bd1	1.5
24	3.27	1.43	bd1	bd1	0.92	16.7
25	bd1	bd1	bd1	bd1	bd1	8.9
26	bd1	bd1	bd1	0.06	bd1	2.1
27	bd1	bd1	bd1	bd1	bd1	9.3
28	bd1	0.54	bd1	bd1	0.41	8.7

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	-	-	28	28
A. MEAN	1.67	1.08	-	-	0.63	25.0
S.D.	1.57	0.87	-	-	0.57	22.6
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	5.32	2.86	-	-	2.13	91.5

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
1	2.6	3.9	-	4.80	2.1	3.648	1.5	0.60	0.469	0.06	0.99	0.44	-	0.90	2
2	1.8	1.6	-	4.00	4.5	7.526	0.9	1.05	1.271	0.19	0.57	0.15	-	1.11	2
4	0.5	0.7	-	-	5.9	-	3.2	-	0.824	-	-	-	-	-	2
5	0.7	0.5	-	-	3.7	8.765	6.5	-	0.386	-	-	-	-	-	2
6	1.2	0.7	-	-	2.1	6.994	0.9	-	0.264	-	-	-	-	-	2
7	1.7	1.0	-	-	5.7	9.695	1.4	-	1.163	-	-	-	-	-	2
10	28.3	16.1	-	4.60	1.3	2.426	bd1	0.22	0.187	0.02	0.29	0.16	0.031	-	3
11	3.5	3.3	-	4.70	2.8	3.475	2.2	0.55	0.734	0.06	1.42	1.41	-	1.08	3
13	0.2	0.3	-	-	-	-	-	-	-	-	-	-	-	-	3
19	9.0	9.4	-	4.10	3.6	5.179	1.1	0.36	0.605	0.04	0.77	0.28	0.018	0.92	1
20	14.4	14.3	-	4.90	1.0	1.200	0.6	0.15	0.209	0.02	0.43	0.11	0.012	0.95	1
22	1.1	1.3	-	4.20	5.1	4.560	3.1	-	1.053	-	-	-	-	-	1
23	19.0	18.9	-	4.70	1.4	1.155	0.7	0.11	0.180	0.05	0.48	0.04	0.008	0.91	1
25	0.5	0.7	-	-	-	-	-	-	-	-	-	-	-	-	2
27	4.6	3.9	-	4.80	1.2	1.332	bd1	0.29	0.215	0.03	0.19	0.11	-	-	2
28	3.2	3.3	-	4.00	7.2	5.578	bd1	0.54	1.558	0.06	0.32	0.10	-	-	3
TOTAL PRECIP	92.3	79.9	-	-	-	-	-	-	-	-	-	-	-	-	-
NO. OBS.	16	16	-	-	14	13	14	-	14	-	-	-	-	-	-
A. MEAN	5.8	5.0	-	-	3.4	4.733	1.6	-	0.651	-	-	-	-	-	-
STD. DEV.	8.1	6.2	-	-	2.0	2.882	1.8	-	0.460	-	-	-	-	-	-
MINIMUM	0.2	0.3	-	-	1.0	1.155	bd1	-	0.180	-	-	-	-	-	-
MAXIMUM	28.3	18.9	-	-	7.2	9.695	6.5	-	1.558	-	-	-	-	-	-
P.W. MEAN	-	-	-	-	2.0	2.741	0.6	-	0.364	-	-	-	-	-	-

PRECIP TYPE

T - TRACE AMOUNT

1 - RAIN

2 - SNOW

3 - MIXED

4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

MARCH 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	bd1	bd1	bd1	bd1	bd1	1.9
2	bd1	bd1	bd1	bd1	bd1	12.4
3	bd1	bd1	bd1	bd1	bd1	21.4
4	bd1	bd1	bd1	bd1	bd1	13.5
5	bd1	bd1	bd1	0.10	bd1	5.4
6	bd1	bd1	bd1	bd1	bd1	4.3
7	bd1	bd1	bd1	bd1	bd1	1.0
8	bd1	bd1	bd1	bd1	bd1	1.1
9	bd1	bd1	bd1	bd1	bd1	8.1
10	bd1	bd1	bd1	bd1	bd1	3.1
11	bd1	bd1	bd1	bd1	bd1	8.7
12	bd1	bd1	bd1	bd1	bd1	24.5
13	bd1	bd1	bd1	bd1	bd1	4.3
14	bd1	bd1	bd1	bd1	bd1	9.0
15	1.10	0.97	bd1	bd1	0.42	11.5
16	1.44	bd1	bd1	bd1	bd1	1.8
17	bd1	bd1	bd1	0.11	bd1	20.5
18	bd1	bd1	bd1	0.11	bd1	4.8
19	bd1	bd1	bd1	0.12	bd1	3.0
20	2.64	0.48	bd1	0.14	0.49	4.4
21	bd1	bd1	bd1	0.09	bd1	8.1
22	bd1	bd1	bd1	0.08	bd1	24.9
23	3.21	bd1	bd1	0.12	bd1	13.3
24	bd1	bd1	bd1	bd1	bd1	4.0
25	bd1	bd1	bd1	bd1	bd1	2.1
26	bd1	bd1	bd1	bd1	bd1	8.6
27	bd1	bd1	bd1	bd1	bd1	1.1
28	bd1	0.44	bd1	0.08	0.39	14.5
29	7.74	2.30	bd1	0.11	2.41	23.6
30	bd1	bd1	bd1	0.10	bd1	9.0
31	1.26	bd1	bd1	bd1	bd1	2.9

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	31
A. MEAN	-	-	-	-	-	8.9
S.D.	-	-	-	-	-	7.4
MIN.	-	-	-	-	-	1.0
MAX.	-	-	-	-	-	24.9

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

														ION BAL.	
AMOUNT		pH												RATIO	PRECIP
DAY	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE
1	0.4	0.7	-	-	3.1	2.390	2.1	-	0.889	-	-	-	-	-	3
3	0.6	0.7	-	-	1.9	2.789	1.3	-	0.618	-	-	-	-	-	2
4	0.9	1.0	-	-	2.1	7.791	1.4	-	1.275	-	-	-	-	-	2
6	1.8	1.6	-	5.00	0.8	0.722	bd1	0.30	0.147	0.04	0.39	0.14	-	-	3
12	12.6	11.7	-	4.60	1.5	1.970	bd1	0.15	0.502	0.03	0.22	0.06	0.004	-	2
13	1.8	3.6	-	5.80	2.4	1.253	0.7	0.45	0.697	0.05	0.57	0.32	0.040	1.07	2
15	2.9	3.3	-	6.70	2.6	5.179	1.0	1.78	1.301	0.24	1.14	0.29	0.066	1.24	2
16	5.4	3.9	-	5.40	0.3	0.885	bd1	0.08	0.283	0.01	0.13	0.04	0.012	-	2
17	1.6	1.0	-	-	1.8	-	1.5	-	-	-	-	-	20.000	-	2
19	7.0	6.2	-	5.10	1.0	0.753	bd1	0.16	bd1	0.01	0.13	0.05	0.005	-	2
29	6.8	7.2	-	4.70	6.7	5.002	0.9	1.26	1.341	0.25	0.60	0.27	0.056	0.86	1
30	23.8	23.0	-	4.60	2.4	0.885	bd1	0.11	0.377	0.01	0.05	0.02	0.003	-	1
TOTAL PRECIP	65.6	63.9													
NO. OBS.	12	12	-	-	12	11	-	-	11	-	-	-	-	-	
A. MEAN	5.5	5.3	-	-	2.2	2.693	-	-	0.675	-	-	-	-	-	
STD. DEV.	6.8	6.5	-	-	1.6	2.332	-	-	0.475	-	-	-	-	-	
MINIMUM	0.4	0.7	-	-	0.3	0.722	-	-	bd1	-	-	-	-	-	
MAXIMUM	23.8	23.0	-	-	6.7	7.791	-	-	1.341	-	-	-	-	-	
P.W. MEAN			-	-	2.3	1.846	-	-	0.517	-	-	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

APRIL 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	SO ₄ ⁼	PARTICULATE				GAS SO ₂
		NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	bd1	bd1	bd1	bd1	bd1	7.2
2	bd1	bd1	bd1	bd1	bd1	7.9
3	2.92	2.09	bd1	0.08	1.18	13.8
4	bd1	bd1	bd1	bd1	bd1	5.8
5	bd1	bd1	bd1	0.07	bd1	1.1
6	bd1	bd1	bd1	bd1	0.50	bd1
7	1.56	1.91	bd1	bd1	0.78	6.0
8	bd1	0.53	bd1	bd1	bd1	37.1
9	bd1	bd1	bd1	bd1	bd1	2.4
10	bd1	0.27	bd1	bd1	bd1	8.3
11	bd1	0.39	bd1	bd1	bd1	2.6
12	bd1	bd1	bd1	bd1	bd1	7.0
13	1.24	0.94	0.19	0.12	0.49	6.8
14	bd1	bd1	0.18	0.11	bd1	bd1
15	bd1	bd1	bd1	bd1	bd1	2.6
16	1.31	1.59	bd1	bd1	0.53	10.7
17	4.78	2.69	0.17	0.07	1.48	12.0
18	1.03	bd1	bd1	0.06	bd1	12.0
19	1.28	bd1	0.37	0.10	bd1	7.0
20	bd1	bd1	bd1	bd1	bd1	5.2
21	bd1	bd1	bd1	bd1	bd1	7.8
22	1.65	bd1	bd1	bd1	bd1	40.4
23	bd1	bd1	bd1	bd1	bd1	18.6
24	bd1	bd1	bd1	bd1	bd1	1.8
25	bd1	bd1	bd1	bd1	bd1	4.9
26	bd1	bd1	bd1	bd1	bd1	4.8
27	bd1	bd1	bd1	bd1	bd1	12.2
28	2.16	bd1	bd1	bd1	bd1	11.5
29	bd1	bd1	bd1	bd1	bd1	2.2
30	bd1	bd1	bd1	bd1	bd1	3.1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	30
A. MEAN	-	-	-	-	-	8.8
S.D.	-	-	-	-	-	9.3
MIN.	-	-	-	-	-	bd1
MAX.	-	-	-	-	-	40.4

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

														ION BAL.	PRECIP
AMOUNT		pH										RATIO			
DAY	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE
1	6.2	5.2	-	4.10	6.7	4.781	0.9	1.07	1.158	0.12	0.51	0.30	0.012	0.98	1
3	6.8	6.8	-	4.40	4.8	3.054	0.6	0.85	0.675	0.11	0.32	0.25	0.012	0.90	1
4	1.6	2.3	-	-	-	-	-	-	-	-	-	-	-	-	1
13	5.4	5.3	-	-	-	-	-	-	-	-	-	-	-	-	1
14	9.0	7.5	-	5.10	2.7	1.284	0.7	0.46	0.373	0.05	0.40	0.42	0.006	0.86	1
18	7.8	7.7	-	5.90	4.6	3.586	0.6	1.11	1.372	0.19	0.29	0.54	0.032	1.00	1
23	8.8	5.9	-	4.10	7.1	3.719	bd1	0.96	0.853	0.11	0.24	0.23	0.006	-	1
24	1.2	0.3	-	-	-	-	-	-	-	-	-	-	-	-	1
28	9.4	8.8	-	4.50	3.2	1.505	0.5	0.44	0.426	0.06	0.25	0.10	0.005	0.91	1
TOTAL PRECIP	56.2	49.8													
NO. OBS.	9	9	-	-	-	-	-	-	-	-	-	-	-	-	
A. MEAN	6.2	5.5	-	-	-	-	-	-	-	-	-	-	-	-	
STD. DEV.	3.1	2.7	-	-	-	-	-	-	-	-	-	-	-	-	
MINIMUM	1.2	0.3	-	-	-	-	-	-	-	-	-	-	-	-	
MAXIMUM	9.4	8.8	-	-	-	-	-	-	-	-	-	-	-	-	
P.W. MEAN			-	-	-	-	-	-	-	-	-	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

MAY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	bd1	bd1	bd1	bd1	bd1	bd1
2	bd1	bd1	bd1	bd1	bd1	bd1
3	bd1	bd1	bd1	bd1	bd1	1.4
4	1.16	0.87	bd1	bd1	0.45	7.1
5	1.96	0.92	bd1	bd1	0.52	12.6
6	bd1	bd1	bd1	bd1	bd1	2.1
7	bd1	bd1	bd1	bd1	bd1	2.2
8	bd1	bd1	bd1	bd1	bd1	5.4
9	bd1	0.68	bd1	bd1	bd1	15.8
10	bd1	bd1	bd1	bd1	bd1	3.8
11	bd1	bd1	bd1	bd1	bd1	5.5
12	bd1	bd1	bd1	bd1	bd1	3.0
13	1.05	bd1	bd1	bd1	bd1	13.2
14	bd1	bd1	bd1	0.09	bd1	2.9
15	1.97	0.36	bd1	bd1	bd1	4.1
16	bd1	bd1	bd1	bd1	bd1	bd1
17	bd1	bd1	bd1	bd1	bd1	2.0
18	bd1	bd1	bd1	bd1	bd1	1.2
19	bd1	bd1	bd1	bd1	bd1	11.7
20	1.59	bd1	bd1	0.07	bd1	10.7
21	1.16	bd1	bd1	bd1	bd1	6.6
22	2.68	0.55	bd1	0.11	0.64	9.9
23	1.91	0.65	bd1	0.07	0.54	13.7
24	12.73	3.40	0.27	0.17	2.71	17.2
25	7.40	1.06	bd1	0.11	1.87	5.4
26	bd1	bd1	bd1	bd1	bd1	4.0
27	2.69	0.31	bd1	bd1	0.67	2.0
28	bd1	bd1	bd1	bd1	bd1	4.1
29	7.41	1.48	bd1	0.14	1.75	9.1
30	bd1	bd1	bd1	bd1	bd1	3.5
31	bd1	bd1	bd1	bd1	bd1	2.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	31
A. MEAN	-	-	-	-	-	5.9
S.D.	-	-	-	-	-	4.9
MIN.	-	-	-	-	-	bd1
MAX.	-	-	-	-	-	17.2

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
5	3.6	2.6	-	4.10	0.5	5.799	0.7	1.40	1.260	0.22	0.15	0.34	-	2.04	1
10	24.5	28.7	-	4.30	2.9	1.594	bd1	0.16	0.420	0.02	0.03	0.04	0.018	-	1
11	17.2	16.3	-	4.40	1.7	2.036	bd1	0.18	0.341	0.02	0.13	0.12	0.004	-	1
12	3.3	2.9	-	4.10	3.9	1.904	bd1	0.14	0.161	0.02	0.42	0.06	0.004	-	1
24	8.0	7.8	-	3.90	9.5	5.135	0.5	0.91	1.180	0.16	0.13	0.22	0.031	0.89	1
25	0.8	0.7	-	-	-	-	-	-	-	-	-	-	-	-	1
26	2.6	2.0	-	4.20	6.5	-	0.7	0.57	-	0.11	0.25	0.22	-	-	1
29	14.3	14.0	-	4.30	4.0	2.745	bd1	0.26	0.892	0.06	0.20	0.07	0.014	-	1
TOTAL PRECIP	74.3	75.0													
NO. OBS.	8	8	-	7	7	6	-	7	6	7	7	7	-	-	
A. MEAN	9.3	9.4	-	4.16	4.1	3.202	-	0.52	0.709	0.09	0.19	0.15	-	-	
STD. DEV.	8.5	9.7	-	4.54	3.0	1.807	-	0.48	0.464	0.08	0.12	0.11	-	-	
MINIMUM	0.8	0.7	-	3.90	0.5	1.594	-	0.14	0.161	0.02	0.03	0.04	-	-	
MAXIMUM	24.5	28.7	-	4.40	9.5	5.799	-	1.40	1.260	0.22	0.42	0.34	-	-	
P.W. MEAN			-	4.23	3.6	2.561	-	0.34	0.612	0.06	0.13	0.11	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
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DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

JUNE 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	bd1	bd1	bd1	bd1	bd1	5.4
2	3.92	0.76	bd1	bd1	0.93	7.2
3	10.31	1.02	bd1	bd1	1.91	10.5
4	2.95	bd1	bd1	bd1	0.61	3.3
5	bd1	bd1	bd1	bd1	bd1	23.4
6	1.26	bd1	bd1	bd1	bd1	3.9
7	bd1	bd1	bd1	bd1	bd1	6.5
8	bd1	bd1	bd1	bd1	0.65	4.9
9	bd1	bd1	bd1	bd1	bd1	5.0
10	bd1	bd1	bd1	bd1	bd1	2.4
11	1.59	bd1	bd1	bd1	bd1	4.3
12	bd1	bd1	bd1	bd1	bd1	5.0
13	2.54	0.31	bd1	0.07	0.89	5.9
14	0.97	bd1	bd1	bd1	0.50	2.9
15	2.02	bd1	bd1	0.07	0.63	4.9
16	2.67	0.49	bd1	bd1	2.17	6.0
17	3.67	bd1	bd1	bd1	0.87	7.5
18	7.47	1.79	bd1	bd1	2.00	10.5
19	1.08	bd1	bd1	bd1	bd1	10.7
20	2.27	bd1	0.29	0.18	bd1	7.5
21	2.66	0.57	bd1	0.07	0.79	12.1
22	1.31	bd1	bd1	bd1	bd1	7.8
23	bd1	bd1	bd1	bd1	bd1	3.5
24	bd1	bd1	bd1	bd1	bd1	8.7
25	1.80	bd1	bd1	bd1	0.49	3.4
26	bd1	bd1	bd1	bd1	bd1	bd1
27	bd1	bd1	bd1	bd1	bd1	1.1
28	2.49	0.63	bd1	bd1	1.05	5.1
29	2.51	0.31	bd1	bd1	1.23	9.4
30	3.21	bd1	4.91	0.18	-	1.7

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	-	-	-	29	30
A. MEAN	1.89	-	-	-	0.51	6.3
S.D.	2.32	-	-	-	0.66	4.4
MIN.	bd1	-	-	-	bd1	bd1
MAX.	10.31	-	-	-	2.17	23.4

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

														ION BAL.	
AMOUNT		pH												RATIO	PRECIP
DAY	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE
3	1.9	1.6	-	3.70	14.5	7.437	0.7	-	1.610	-	-	-	-	-	1
5	1.6	1.3	-	4.70	7.7	6.552	1.1	-	1.945	-	-	-	-	-	1
6	3.2	2.6	-	4.20	6.6	1.284	bd1	-	0.466	-	-	-	0.045	-	1
8	4.4	3.3	-	4.30	9.4	0.168	0.6	-	2.035	-	-	-	0.015	-	1
12	4.8	3.6	-	4.30	3.3	1.107	0.5	-	0.878	-	-	-	-	-	1
14 (2)	26.4	26.7	-	4.80	1.9	1.195	bd1	0.20	0.339	0.05	0.11	0.22	0.017	-	1
21	8.6	8.5	-	4.30	2.9	1.726	bd1	0.30	0.429	0.05	0.13	0.21	0.019	-	1
22	8.2	7.8	-	4.60	2.0	0.664	bd1	0.17	0.353	0.04	0.19	0.16	0.007	-	1
23	1.2	1.3	-	-	6.6	-	1.1	-	-	-	-	-	-	-	1
24	8.2	7.8	-	4.00	6.3	3.940	bd1	bd1	0.920	bd1	0.08	0.10	0.006	-	1
25	5.7	4.2	-	4.40	2.9	0.930	bd1	0.17	0.358	0.04	0.14	0.15	0.012	-	1
28	1.2	1.0	-	-	15.9	-	1.1	-	-	-	-	-	-	-	1
29	4.0	3.7	-	3.90	6.9	3.674	0.5	-	0.625	-	-	-	0.011	-	1
TOTAL PRECIP	53.0	46.7													
NO. OBS.	12	12	-	10	12	10	-	-	10	-	-	-	-	-	
A. MEAN	4.4	3.9	-	4.14	7.1	2.748	-	-	0.962	-	-	-	-	-	
STD. DEV.	2.8	2.7	-	4.26	4.4	2.559	-	-	0.660	-	-	-	-	-	
MINIMUM	1.2	1.0	-	3.70	2.0	0.168	-	-	0.353	-	-	-	-	-	
MAXIMUM	8.6	8.5	-	4.70	15.9	7.437	-	-	2.035	-	-	-	-	-	
P.W. MEAN			-	4.19	5.3	2.122	-	-	0.781	-	-	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

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DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

JULY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	0.72	0.21	0.71	bd1	bd1	5.0
2	0.83	0.42	0.24	0.06	0.35	3.7
3	2.22	0.79	0.22	0.15	0.78	8.5
4	bd1	0.16	0.16	bd1	bd1	12.2
5	9.39	0.70	0.13	bd1	1.96	7.6
6	1.01	0.23	bd1	0.11	0.54	2.8
7	1.74	0.36	bd1	bd1	0.58	0.9
8	3.03	0.31	bd1	bd1	0.82	4.7
9	0.39	bd1	bd1	bd1	bd1	bd1
10	2.41	0.51	-	0.06	-	bd1
11	bd1	bd1	bd1	bd1	-	3.6
12	4.85	0.86	bd1	bd1	2.71	2.8
13	1.06	0.18	bd1	0.07	0.35	1.5
14	0.23	bd1	0.35	bd1	-	bd1
15	bd1	bd1	bd1	bd1	0.33	1.6
16	0.26	bd1	bd1	0.07	0.23	bd1
17	0.22	bd1	bd1	bd1	bd1	0.9
18	bd1	bd1	bd1	bd1	bd1	15.7
19	5.86	0.94	bd1	0.10	1.33	3.8
20	2.13	0.19	bd1	bd1	0.88	2.6
21	-	-	-	-	-	-
22	0.38	bd1	bd1	0.07	1.59	bd1
23	0.49	bd1	bd1	bd1	bd1	bd1
24	0.51	0.30	bd1	0.10	0.29	1.8
25	11.23	1.04	bd1	0.11	1.77	7.5
26	5.75	0.42	bd1	0.11	1.58	3.3
27	0.23	0.21	bd1	bd1	bd1	7.0
28	0.41	bd1	bd1	bd1	bd1	bd1
29	0.68	bd1	bd1	bd1	bd1	bd1
30	1.20	bd1	bd1	bd1	bd1	3.3
31	4.83	1.21	2.13	1.24	8.26	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	27	30
A. MEAN	2.07	0.30	-	-	0.90	3.4
S.D.	2.84	0.36	-	-	1.65	3.9
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	11.23	1.21	-	-	8.26	15.7

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
1	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	1
3	6.2	6.5	-	4.00	6.9	4.737	0.7	0.41	0.699	0.08	0.37	0.29	0.006	0.79	1
4	46.4	43.0	-	4.30	3.1	1.151	bd1	0.12	0.416	0.02	0.07	0.07	0.003	-	1
9	4.4	3.3	-	-	-	-	-	-	-	-	-	-	-	-	1
12	2.9	2.6	-	4.20	5.6	3.453	0.5	0.53	1.539	0.15	0.30	0.18	0.026	1.10	1
19	6.6	6.5	-	4.60	2.2	1.726	bd1	0.21	0.532	0.05	0.17	0.11	0.003	-	1
20	1.3	0.7	-	-	14.4	-	0.7	-	-	-	-	-	-	-	1
25	6.7	6.4	-	3.70	11.4	7.127	0.6	0.95	1.272	0.17	0.24	0.23	0.004	0.94	1
26	8.6	9.4	-	3.60	15.2	8.632	0.9	0.86	1.486	0.15	0.43	0.38	0.002	0.87	1
28	11.0	10.4	-	4.50	1.9	1.107	bd1	0.17	0.201	0.02	0.16	0.16	0.014	-	1
29	1.4	0.7	-	-	9.8	-	1.2	-	-	-	-	-	-	-	1
TOTAL PRECIP	96.2	89.5													
NO. OBS.	11	10	-	-	9	-	-	-	-	-	-	-	-	-	
A. MEAN	8.7	9.0	-	-	7.8	-	-	-	-	-	-	-	-	-	
STD. DEV.	12.9	12.4	-	-	5.1	-	-	-	-	-	-	-	-	-	
MINIMUM	0.7	0.7	-	-	1.9	-	-	-	-	-	-	-	-	-	
MAXIMUM	46.4	43.0	-	-	15.2	-	-	-	-	-	-	-	-	-	
P.W. MEAN			-	-	5.2	-	-	-	-	-	-	-	-	-	

PRECIP TYPE

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CHALK RIVER

AUGUST 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	2.77	0.62	bd1	0.08	1.05	7.3
2	13.78	1.07	bd1	0.09	2.52	6.8
3	-	-	-	-	-	2.1
4	2.77	0.47	1.61	bd1	-	bd1
5	bd1	bd1	bd1	bd1	1.74	bd1
6	bd1	bd1	bd1	bd1	bd1	1.1
7	bd1	0.17	bd1	bd1	0.34	2.9
8	2.73	0.68	bd1	0.13	0.86	4.3
9	2.60	0.27	bd1	bd1	0.71	1.6
10	0.45	0.33	0.48	0.08	-	8.3
11	0.87	bd1	bd1	bd1	bd1	5.6
12	bd1	bd1	bd1	bd1	bd1	bd1
13	bd1	bd1	bd1	bd1	bd1	9.4
14	0.94	0.48	1.96	bd1	37.53	9.4
15	bd1	bd1	bd1	bd1	bd1	4.6
16	bd1	bd1	bd1	bd1	bd1	8.9
17	bd1	bd1	bd1	bd1	bd1	17.1
18	1.16	bd1	bd1	bd1	-	1.4
19	0.50	bd1	bd1	bd1	bd1	7.9
20	bd1	bd1	0.28	bd1	0.42	2.9
21	3.21	bd1	0.37	bd1	0.66	14.7
22	3.26	bd1	0.44	bd1	0.54	11.1
23	0.56	bd1	0.55	bd1	bd1	6.9
24	2.84	0.38	1.44	0.29	-	bd1
25	1.26	0.15	bd1	bd1	0.21	3.6
26	0.61	bd1	bd1	bd1	0.29	1.2
27	bd1	bd1	bd1	bd1	0.18	bd1
28	4.51	0.61	1.09	bd1	-	4.1
29	1.47	0.49	bd1	bd1	0.31	2.8
30	0.24	bd1	bd1	bd1	0.18	4.3
31	0.78	0.32	0.24	0.07	-	8.0

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	-	-	-	24	31
A. MEAN	1.58	-	-	-	1.98	5.1
S.D.	2.64	-	-	-	7.60	4.4
MIN.	bd1	-	-	-	bd1	bd1
MAX.	13.78	-	-	-	37.53	17.1

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
4	33.2	33.6	-	4.70	1.3	0.531	bd1	0.06	0.160	bd1	0.05	0.04	0.001	-	1
7	1.6	0.7	-	4.40	3.2	-	1.5	-	-	-	-	-	-	-	1
8	5.9	6.5	-	4.10	5.3	2.390	bd1	0.28	0.695	0.05	0.19	0.16	0.044	-	1
9	1.0	1.3	-	-	7.4	-	0.8	-	-	-	-	-	0.007	-	1
10	8.0	7.8	-	4.20	3.7	2.125	bd1	0.20	0.704	0.03	0.10	0.15	0.007	-	1
11	8.6	7.8	-	4.60	1.8	1.018	bd1	0.10	0.455	0.02	0.22	0.05	0.006	-	1
12	1.0	1.0	-	-	9.0	-	0.5	-	-	-	-	-	-	-	1
14	1.0	0.7	-	4.10	8.1	-	1.1	-	-	-	-	-	0.004	-	1
15	6.5	6.2	-	4.10	4.4	1.328	bd1	0.13	0.323	0.02	0.10	0.06	0.008	-	1
23	14.2	13.4	-	4.20	3.9	1.771	bd1	0.13	0.437	0.02	0.06	0.02	0.002	-	1
26	1.0	0.7	-	-	17.3	-	0.6	-	-	-	-	-	-	-	1
28	6.3	6.4	-	4.10	4.8	2.125	bd1	0.18	0.518	0.03	0.20	0.08	0.003	-	1
29	22.8	22.6	-	4.10	4.6	2.125	bd1	0.18	0.531	0.03	0.16	0.08	0.003	-	1
30	0.8	0.3	-	-	14.5	-	2.8	-	-	-	-	-	-	-	1
31	18.6	17.9	-	4.30	3.0	1.372	bd1	0.06	0.363	bd1	0.10	0.04	0.002	-	1

TOTAL PRECIP 130.5 126.9

NO. OBS.	15	15	-	11	15	-	-	-	-	-	-	-	11	-
A. MEAN	8.7	8.5	-	4.22	6.2	-	-	-	-	-	-	-	0.008	-
STD. DEV.	9.6	9.7	-	4.64	4.5	-	-	-	-	-	-	-	0.012	-
MINIMUM	0.8	0.3	-	4.10	1.3	-	-	-	-	-	-	-	0.001	-
MAXIMUM	33.2	33.6	-	4.70	17.3	-	-	-	-	-	-	-	0.044	-
P.W. MEAN	-	-	-	4.28	3.5	-	-	-	-	-	-	-	0.005	-

PRECIP TYPE

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CHALK RIVER

SEPTEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	2.13	0.33	0.25	0.07	-	1.0
2	3.73	0.53	bd1	0.13	1.02	1.0
3	3.05	0.99	0.12	0.12	0.93	4.4
4	2.37	0.73	bd1	0.10	0.77	3.1
5	3.42	0.78	bd1	bd1	0.88	6.6
6	4.12	0.78	bd1	0.12	0.96	6.3
7	3.36	0.56	0.28	0.06	-	6.7
8	1.50	bd1	0.26	bd1	0.34	6.4
9	bd1	bd1	0.29	bd1	bd1	1.0
10	bd1	bd1	0.32	bd1	bd1	3.2
11	3.43	0.59	-	-	-	8.0
12	bd1	bd1	bd1	bd1	-	3.2
13	1.20	bd1	bd1	0.06	bd1	4.0
14	1.11	0.18	bd1	bd1	0.41	4.4
15	0.61	bd1	0.14	bd1	-	1.7
16	bd1	bd1	bd1	bd1	bd1	1.0
17	bd1	bd1	bd1	bd1	bd1	2.7
18	0.22	bd1	bd1	bd1	bd1	bd1
19	0.56	bd1	bd1	bd1	bd1	2.2
20	bd1	bd1	bd1	bd1	bd1	bd1
21	0.32	0.17	0.10	bd1	-	5.6
22	bd1	bd1	bd1	bd1	bd1	bd1
23	bd1	bd1	bd1	bd1	bd1	bd1
24	0.29	bd1	bd1	bd1	-	bd1
25	1.73	bd1	0.62	0.07	-	2.6
26	5.28	2.07	bd1	0.07	1.90	5.8
27	0.61	bd1	bd1	bd1	bd1	bd1
28	0.63	bd1	bd1	bd1	bd1	1.8
29	0.79	0.25	0.71	0.08	-	bd1
30	0.54	bd1	0.53	0.09	bd1	3.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	-	-	-	-	30
A. MEAN	1.37	-	-	-	-	2.9
S.D.	1.53	-	-	-	-	2.5
MIN.	bd1	-	-	-	-	bd1
MAX.	5.28	-	-	-	-	8.0

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH		ION BAL. RATIO										PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	
1	38.7	39.4	-	4.00	4.3	2.169	bd1	0.07	0.421	0.01	0.11	0.04	0.003	-	1
2	1.8	2.0	-	3.60	17.6	-	0.7	0.31	-	0.06	0.83	0.30	0.023	-	1
3 (2)	35.0	34.9	-	4.40	2.0	1.328	bd1	0.04	0.219	bd1	0.08	0.02	0.006	-	1
5	6.1	5.2	-	4.00	4.7	2.169	bd1	0.11	0.402	0.02	0.18	0.08	20.000	-	1
7	3.6	3.4	-	4.00	5.4	3.364	bd1	0.24	0.607	0.05	0.23	0.05	-	-	1
8	4.0	2.6	-	4.20	4.4	1.151	0.3	0.16	0.497	0.03	0.20	0.08	0.031	0.94	1
9	16.2	15.0	-	5.70	0.6	0.487	0.1	0.03	0.077	0.01	0.12	0.02	0.002	0.54	1
11	6.8	6.7	-	4.60	2.1	1.372	0.2	0.17	0.502	0.04	0.12	0.08	0.010	0.99	1
13	5.2	5.2	-	4.80	4.6	1.638	0.3	0.49	0.944	0.09	0.51	0.13	0.014	0.97	1
19	3.0	2.6	-	4.90	2.3	1.549	0.6	0.29	0.609	0.08	0.44	0.13	0.013	1.01	1
20	2.6	1.3	-	4.60	1.9	0.398	0.5	-	0.393	-	-	-	-	-	1
22	3.6	2.6	-	5.50	0.7	0.310	0.9	0.24	0.058	0.06	0.59	0.36	-	1.21	1
26	15.2	15.6	-	4.10	4.7	2.479	0.2	0.19	0.623	0.03	0.12	0.08	0.003	0.93	1
TOTAL PRECIP 106.8 101.6															
NO. OBS.	12	12	-	12	12	11	12	11	11	11	11	11	9	-	
A. MEAN	8.9	8.5	-	1.19	4.4	1.553	0.3	0.21	0.467	0.04	0.31	0.12	2.233	-	
STD. DEV.	10.5	10.9	-	4.15	4.5	0.955	0.3	0.13	0.250	0.03	0.24	0.11	6.663	-	
MINIMUM	1.8	1.3	-	3.60	0.6	0.310	bd1	0.03	0.058	0.01	0.11	0.02	0.002	-	
MAXIMUM	38.7	39.4	-	5.70	17.6	3.364	0.9	0.49	0.944	0.09	0.83	0.36	20.000	-	
P.W. MEAN			-	4.17	3.7	1.753	0.2	0.14	0.429	0.03	0.18	0.07	1.263		

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

OCTOBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	bd1	bd1	bd1	bd1	bd1	bd1
2	bd1	bd1	bd1	bd1	bd1	bd1
3	0.39	bd1	bd1	bd1	bd1	bd1
4	0.92	bd1	0.12	0.12	bd1	3.3
5	1.43	0.16	bd1	bd1	0.25	3.0
6	1.77	0.71	bd1	bd1	0.47	2.8
7	bd1	bd1	bd1	bd1	bd1	bd1
8	bd1	bd1	bd1	bd1	bd1	bd1
9	0.22	bd1	bd1	bd1	-	bd1
10	bd1	bd1	bd1	bd1	bd1	1.9
11	0.95	0.85	bd1	0.10	0.32	3.9
12	5.83	0.88	bd1	bd1	bd1	4.3
13	3.01	0.73	0.13	bd1	bd1	bd1
14	4.22	2.52	0.13	bd1	1.31	8.8
15	4.40	1.67	bd1	bd1	1.33	5.0
16	0.28	bd1	bd1	bd1	bd1	1.0
17	1.11	0.42	bd1	bd1	0.41	3.0
18	1.38	0.35	bd1	bd1	0.54	1.4
19	1.07	0.18	bd1	0.16	bd1	bd1
20	1.49	1.25	bd1	bd1	0.64	7.7
21	0.47	bd1	bd1	bd1	bd1	bd1
22	1.20	bd1	bd1	bd1	bd1	2.3
23	2.33	0.19	bd1	bd1	0.51	1.7
24	1.00	0.20	bd1	bd1	0.35	3.3
25	2.57	1.93	bd1	0.08	1.01	8.3
26	2.83	1.23	bd1	0.07	0.74	6.2
27	8.03	0.55	bd1	bd1	bd1	bd1
28	0.76	0.15	0.12	bd1	bd1	bd1
29	0.52	0.29	bd1	bd1	0.27	6.2
30	2.30	2.52	0.13	0.24	0.97	7.0
31	2.56	2.28	0.15	0.20	1.06	4.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	30	31
A. MEAN	1.71	0.62	-	-	0.34	2.8
S.D.	1.85	0.80	-	-	0.43	2.8
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	8.03	2.52	-	-	1.33	8.8

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH										ION BAL.		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
1	13.0	12.7	-	4.40	2.0	0.753	0.1	0.11	0.091	0.03	0.07	0.07	0.002	1.00	1
2	3.0	0.7	-	5.30	1.1	0.531	0.7	0.36	0.098	0.10	0.47	0.27	-	1.24	1
6	10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	1
15	9.2	9.1	-	4.20	3.4	2.036	0.2	0.20	0.161	0.05	0.23	0.08	0.002	0.90	1
17	9.6	9.8	-	4.60	1.4	0.664	0.1	0.09	0.126	0.03	0.05	0.06	0.004	0.97	1
18	3.2	2.6	-	4.70	2.2	1.151	0.2	0.22	0.322	0.06	0.14	0.18	0.045	0.91	1
20	3.2	2.9	-	4.60	4.8	3.187	0.5	0.83	0.958	0.14	0.29	0.23	0.010	0.90	1
22	7.0	4.6	-	5.50	1.0	0.398	0.3	0.33	bd1	0.07	0.20	0.04	0.019	-	2
23	11.2	-	-	-	-	-	-	-	-	-	-	-	-	-	1
26	0.8	0.7	-	-	6.0	-	4.1	-	-	-	-	-	-	-	1
TOTAL PRECIP	70.8	43.1													
NO. OBS.	10	8	-	7	8	7	8	7	7	7	7	7	-	-	
A. MEAN	7.1	5.4	-	4.59	2.7	1.246	0.8	0.31	0.251	0.07	0.21	0.13	-	-	
STD. DEV.	4.2	4.6	-	4.68	1.8	1.018	1.4	0.25	0.327	0.04	0.14	0.09	-	-	
MINIMUM	0.8	0.7	-	4.20	1.0	0.398	0.1	0.09	bd1	0.03	0.05	0.04	-	-	
MAXIMUM	13.0	12.7	-	5.50	6.0	3.187	4.1	0.83	0.958	0.14	0.47	0.27	-	-	
P.W. MEAN			-	4.50	2.2	1.103	0.3	0.23	0.171	0.05	0.16	0.10	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

NOVEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	bd1	bd1	bd1	bd1	bd1	bd1
2	9.92	2.22	bd1	0.09	1.66	11.2
3	bd1	bd1	bd1	bd1	bd1	2.1
4	0.85	0.42	bd1	bd1	0.34	8.8
5	2.60	1.66	bd1	bd1	1.07	17.9
6	1.03	0.24	0.16	bd1	0.41	bd1
7	0.33	bd1	bd1	bd1	bd1	3.0
8	0.91	1.00	bd1	bd1	0.52	7.2
9	0.55	0.22	bd1	bd1	bd1	bd1
10	2.60	0.95	bd1	0.08	0.67	bd1
11	0.61	0.25	bd1	0.17	bd1	3.9
12	0.64	0.36	bd1	bd1	bd1	4.1
13	1.71	1.12	bd1	bd1	0.61	12.5
14	4.67	1.84	bd1	0.17	1.33	29.0
15	0.99	0.25	bd1	bd1	0.26	3.2
16	0.47	bd1	bd1	bd1	bd1	3.7
17	2.68	0.84	bd1	bd1	0.62	2.0
18	1.27	bd1	bd1	bd1	0.31	6.1
19	0.80	bd1	bd1	bd1	bd1	2.8
20	0.99	bd1	bd1	bd1	bd1	bd1
21	0.23	bd1	bd1	bd1	bd1	1.1
22	bd1	bd1	bd1	bd1	bd1	1.4
23	1.77	0.28	bd1	bd1	bd1	bd1
24	0.82	bd1	bd1	bd1	bd1	1.9
25	0.67	bd1	bd1	bd1	bd1	bd1
26	2.16	0.62	bd1	bd1	0.59	4.3
27	1.20	0.33	bd1	bd1	0.32	2.4
28	0.35	bd1	bd1	bd1	bd1	bd1
29	0.59	bd1	bd1	-	-	bd1
30	0.85	0.18	bd1	bd1	bd1	6.8

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	-	30
A. MEAN	1.41	0.43	-	-	-	4.5
S.D.	1.89	0.61	-	-	-	6.3
MIN.	bd1	bd1	-	-	-	bd1
MAX.	9.92	2.22	-	-	-	29.0

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH										ION BAL.		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
5	4.2	4.6	-	4.40	2.5	3.338	1.2	0.27	0.143	0.05	1.09	0.03	0.005	0.81	1
6	1.6	0.7	-	-	-	-	-	-	-	-	-	-	-	-	1
11	1.2	1.3	-	4.40	4.8	-	1.3	-	-	-	-	-	-	-	2
16	0.7	1.6	-	5.20	2.7	-	2.0	1.11	-	0.28	1.24	0.16	-	-	1
17	3.6	3.9	-	4.40	3.3	1.793	0.6	0.43	0.585	0.08	0.55	0.34	0.008	1.16	1
20	11.0	11.2	-	4.10	2.0	1.695	0.6	0.30	0.202	0.04	0.35	0.34	0.010	1.55	2
21	1.9	1.3	-	4.50	2.4	-	3.3	-	-	-	-	-	0.011	-	2
26	14.7	14.0	-	4.70	1.7	1.394	0.7	0.23	0.410	0.03	0.27	0.19	0.009	0.94	1
28	0.1	0.7	-	-	-	-	-	-	-	-	-	-	-	-	3
TOTAL PRECIP	39.0	39.3													
NO. OBS.	9	9	-	7	7	-	7	-	-	-	-	-	-	-	
A. MEAN	4.3	4.4	-	4.44	2.8	-	1.4	-	-	-	-	-	-	-	
STD. DEV.	5.1	4.9	-	4.64	1.0	-	1.0	-	-	-	-	-	-	-	
MINIMUM	0.1	0.7	-	4.10	1.7	-	0.6	-	-	-	-	-	-	-	
MAXIMUM	14.7	14.0	-	5.20	4.8	-	3.3	-	-	-	-	-	-	-	
P.W. MEAN			-	4.37	2.2	-	0.9	-	-	-	-	-	-	-	

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
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- 4 - UNCERTAIN

DAY() - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

DECEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	1.98	1.91	bd1	bd1	0.75	2.6
2	2.30	1.25	bd1	0.09	0.81	4.5
3	2.81	0.61	bd1	bd1	0.74	4.9
4	1.55	0.18	bd1	bd1	bd1	2.8
5	0.56	bd1	bd1	bd1	bd1	2.9
6	0.62	bd1	bd1	bd1	bd1	1.1
7	0.71	0.35	0.12	bd1	bd1	bd1
8	0.28	bd1	bd1	bd1	bd1	bd1
9	0.40	bd1	bd1	0.09	bd1	2.2
10	0.30	bd1	bd1	bd1	bd1	2.0
11	0.24	bd1	bd1	bd1	bd1	bd1
12	0.22	bd1	bd1	0.09	bd1	bd1
13	1.43	0.47	bd1	0.14	0.33	4.5
14	2.85	2.98	bd1	bd1	1.27	5.4
15	9.77	1.85	bd1	bd1	-	1.3
16	1.98	0.46	bd1	bd1	0.36	17.4
17	0.53	0.47	bd1	0.10	bd1	2.5
18	0.37	0.18	bd1	bd1	bd1	11.1
19	0.34	0.14	bd1	bd1	bd1	3.1
20	1.31	0.45	bd1	bd1	bd1	9.6
21	3.55	2.34	bd1	0.12	1.07	27.2
22	1.72	0.88	bd1	bd1	0.44	23.6
23	3.37	0.96	bd1	0.13	0.68	8.9
24	1.89	1.67	bd1	0.08	0.82	4.7
25	1.21	0.95	bd1	0.08	0.50	5.8
26	1.23	0.67	0.18	0.17	0.30	8.7
27	2.11	1.44	bd1	0.09	1.19	9.5
28	2.00	1.19	bd1	bd1	0.70	14.6
29	0.35	0.16	bd1	bd1	bd1	bd1
30	2.41	2.71	bd1	0.10	1.12	6.9
31	4.97	4.70	bd1	0.15	1.84	17.1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	30	31
A. MEAN	1.79	0.93	-	-	0.43	6.6
S.D.	1.88	1.10	-	-	0.51	7.0
MIN.	0.22	bd1	-	-	bd1	bd1
MAX.	9.77	4.70	-	-	1.84	27.2

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH		ION BAL. RATIO										PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	
1	3.4	3.9	-	4.10	3.6	6.552	0.7	0.68	0.832	0.08	0.24	0.22	0.024	0.91	1
3	0.6	1.3	-	5.20	8.4	-	1.4	-	-	-	-	-	-	-	1
7	2.2	2.0	-	6.40	2.9	2.138	0.9	1.45	0.010	0.07	0.48	0.18	0.073	0.78	2
9	4.8	1.3	-	5.90	1.4	-	0.5	0.65	-	0.08	0.41	0.35	0.259	-	2
11	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2
13	1.4	1.3	-	4.80	3.4	-	1.3	-	-	-	-	-	-	-	2
14	6.4	5.5	-	4.30	1.6	3.958	bd1	0.34	0.551	0.05	0.13	0.08	0.017	-	2
15	0.6	1.3	-	3.90	7.1	-	1.0	-	-	-	-	-	-	-	2
18	0.3	0.7	-	6.80	2.8	-	16.3	-	-	-	-	-	-	-	2
19	0.3	0.4	-	-	2.3	-	3.1	-	-	-	-	-	-	-	2
24	2.4	1.1	-	4.30	1.4	-	0.4	-	-	-	-	-	-	-	2
27	9.2	6.8	-	4.50	0.2	2.054	0.2	0.16	0.097	0.02	0.06	0.02	0.013	1.12	2
31	7.7	3.3	-	4.50	0.9	4.028	0.4	0.62	0.176	0.08	0.31	0.11	-	1.01	2
TOTAL PRECIP	40.3	28.9													
NO. OBS.	13	12	-	11	12	-	12	-	-	-	-	-	-	-	
A. MEAN	3.1	2.4	-	4.45	3.0	-	2.2	-	-	-	-	-	-	-	
STD. DEV.	3.0	2.0	-	4.41	2.5	-	4.5	-	-	-	-	-	-	-	
MINIMUM	0.3	0.4	-	3.90	0.2	-	bd1	-	-	-	-	-	-	-	
MAXIMUM	9.2	6.8	-	6.80	8.4	-	16.3	-	-	-	-	-	-	-	
P.W. MEAN			-	4.46	1.6	-	0.6	-	-	-	-	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
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DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

APPENDIX 4

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS
IN AIR AND PRECIPITATION AT LONG POINT

LONG POINT

JULY 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS			PARTICULATE		
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2	Br	V	Al	Mn	Ca
1	10.73	6.01	0.33	0.12	-	-	0.0161	0.00449	0.739	0.0256	0.84
2	2.75	3.02	0.32	bd1	2.24	5.0	bd1	0.00200	0.399	0.0117	1.37
3	4.62	4.00	0.34	0.09	3.17	12.3	0.0129	0.00219	0.320	0.0110	1.30
4	14.06	4.58	0.22	0.16	4.44	21.6	0.0236	0.00575	0.868	0.0196	1.60
5	6.13	3.20	0.25	bd1	3.31	4.7	bd1	0.00120	0.211	0.0049	0.41
6	0.52	0.73	bd1	bd1	1.04	1.8	bd1	bd1	bd1	bd1	0.34
7	10.25	3.17	0.23	0.17	3.18	16.8	0.0149	0.00448	0.483	0.0159	0.64
8	1.39	1.17	0.21	bd1	1.24	5.9	0.0173	0.00132	0.247	0.0080	1.15
9	3.25	3.52	0.25	0.10	2.25	3.0	bd1	0.00107	0.198	0.0057	0.98
10	11.34	4.58	bd1	0.12	4.01	17.2	0.0119	0.00236	0.270	0.0115	0.42
11	3.74	2.47	0.19	0.10	2.40	11.1	bd1	0.00119	0.230	0.0106	0.71
12	5.78	2.21	0.27	0.15	2.67	3.4	bd1	0.00067	0.226	0.0087	0.92
13	3.00	2.52	0.27	0.21	2.07	4.7	0.0112	0.00155	0.241	0.0142	1.07
14	6.41	4.28	0.30	0.18	3.09	13.7	bd1	0.00201	0.311	0.0090	0.61
15	17.53	4.96	0.55	0.45	6.20	20.6	-	-	-	-	-
16	8.88	6.40	0.48	0.41	4.35	7.6	-	-	-	-	-
17	4.31	2.27	0.54	0.39	2.86	4.2	-	-	-	-	-
18	5.98	2.78	0.60	0.45	3.13	7.0	-	-	-	-	-
19	15.10	5.87	0.61	0.59	5.61	20.5	-	-	-	-	-
20	22.45	5.06	0.99	0.85	6.77	-	-	-	-	-	-
21	8.73	3.92	0.45	0.25	3.32	12.8	-	-	-	-	-
22	4.75	1.10	0.37	0.38	2.52	3.3	-	-	-	-	-
23	3.38	0.67	0.73	0.67	2.25	6.1	-	-	-	-	-
24	0.98	0.83	0.34	0.40	1.44	3.7	-	-	-	-	-
25	6.78	4.95	0.51	0.48	3.79	9.2	-	-	-	-	-
26	13.75	8.83	0.79	0.33	5.69	13.3	-	-	-	-	-
27	21.50	4.69	0.68	0.41	5.21	18.9	-	-	-	-	-
28	11.20	3.43	0.71	0.60	3.80	11.5	-	-	-	-	-
29	16.96	5.14	0.77	0.50	5.62	7.6	-	-	-	-	-
30	2.91	1.83	0.43	0.37	2.39	4.0	-	-	-	-	-
31	11.96	4.61	0.45	0.38	4.80	10.4	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	31	31	30	29	-	-	-	-	-
A. MEAN	8.42	3.64	0.42	0.30	3.50	9.7	-	-	-	-	-
S.D.	5.97	1.88	0.23	0.22	1.50	6.0	-	-	-	-	-
MIN.	0.52	0.67	bd1	bd1	1.04	1.8	-	-	-	-	-
MAX.	22.45	8.83	0.99	0.85	6.77	21.6	-	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH										ION BAL.		PRECIP
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
5	5.3	4.6	-	6.30	4.7	3.896	0.4	0.82	-	0.21	0.21	0.97	0.472	-	1
7	22.1	22.1	-	4.30	3.4	2.165	0.1	0.48	0.568	0.07	0.07	0.06	0.010	1.08	1
15	2.1	1.3	-	-	20.6	-	1.0	7.21	-	0.54	0.88	0.62	-	-	1
16	2.1	1.6	-	3.80	6.6	-	0.2	1.94	-	0.19	0.18	0.14	-	-	1
18	17.2	16.9	-	4.10	4.5	3.187	0.1	0.52	0.632	0.09	0.07	0.05	0.012	1.03	1
21	33.4	34.2	-	4.10	2.9	2.523	0.1	0.20	0.310	0.03	0.15	0.03	0.009	1.14	1
22	5.2	5.5	-	4.90	1.0	1.014	0.1	0.19	0.008	0.02	0.36	0.03	0.011	0.99	1
27	22.0	22.5	-	4.00	3.6	2.067	0.1	0.20	0.279	0.03	0.06	0.04	0.013	1.19	1
28	16.1	16.0	-	3.80	6.8	2.656	bd1	0.15	0.355	0.02	0.05	0.03	0.008	-	1
29	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	1
31	2.4	2.6	-	3.80	7.8	3.320	0.3	0.89	0.737	0.11	0.08	0.10	0.014	1.16	1

TOTAL PRECIP 128.3 127.3

NO. OBS.	11	10	-	9	10	8	10	10	-	10	10	10	8	-	-
A. MEAN	11.7	12.7	-	4.05	6.2	2.604	0.2	1.26	-	0.13	0.21	0.21	0.069	-	-
STD. DEV.	11.0	11.3	-	4.21	5.5	0.890	0.3	2.16	-	0.16	0.25	0.32	0.163	-	-
MINIMUM	0.4	1.3	-	3.80	1.0	1.014	bd1	0.15	-	0.02	0.05	0.03	0.008	-	-
MAXIMUM	33.4	34.2	-	6.30	20.6	3.896	1.0	7.21	-	0.54	0.88	0.97	0.472	-	-
P.W. MEAN	-	-	-	4.07	4.3	2.498	0.1	0.47	-	0.06	0.12	0.09	0.030	-	-

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

AUGUST 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS	PARTICULATE					
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂	Br	V	Al	Mn	Ca	
1	16.70	9.19	0.58	0.43	6.58	9.2	-	-	-	-	-	
2	4.70	2.53	0.59	0.39	3.03	2.8	-	-	-	-	-	
3	4.47	1.89	0.53	0.34	2.92	4.0	-	-	-	-	-	
4	6.35	4.23	0.79	0.41	3.37	13.1	-	-	-	-	-	
5	6.85	4.63	1.25	0.51	3.28	21.1	-	-	-	-	-	
6	12.34	8.94	0.69	0.56	5.97	14.2	-	-	-	-	-	
7	12.07	5.90	0.56	0.50	5.40	15.3	-	-	-	-	-	
8	9.51	4.07	0.54	0.39	4.48	9.0	-	-	-	-	-	
9	2.55	1.46	0.46	0.28	1.76	6.8	-	-	-	-	-	
10	3.51	2.26	0.50	0.28	2.76	13.8	-	-	-	-	-	
11	7.40	3.48	0.41	0.34	3.84	15.1	-	-	-	-	-	
12	2.36	1.45	0.28	0.29	1.90	2.7	-	-	-	-	-	
13	3.85	2.17	0.34	0.28	2.31	10.6	-	-	-	-	-	
14	9.90	4.26	0.64	0.29	4.38	11.4	-	-	-	-	-	
15	0.74	bd1	0.42	0.20	1.40	1.1	-	-	-	-	-	
16	1.53	0.75	0.34	0.22	1.21	-	bd1	0.00049	0.244	0.0063	1.04	
17	8.96	2.45	bd1	0.14	2.30	-	-	-	-	-	-	
18	bd1	0.93	0.70	0.28	bd1	5.2	bd1	bd1	bd1	bd1	bd1	
19	6.99	4.28	0.93	0.22	3.34	6.5	0.0186	0.00181	0.404	0.0087	0.71	
20	bd1	bd1	bd1	bd1	bd1	2.7	bd1	bd1	bd1	bd1	bd1	
21	13.80	6.77	0.26	0.15	5.40	14.0	0.0167	0.00414	0.434	0.0155	0.87	
22	31.19	1.24	0.37	0.34	5.11	32.5	0.0167	0.00805	0.626	0.0177	0.80	
23	bd1	bd1	0.46	bd1	bd1	1.0	bd1	bd1	bd1	bd1	bd1	
24	13.81	4.52	0.31	0.09	4.71	10.9	0.0191	0.00308	0.206	0.0229	0.49	
25	7.84	3.49	0.38	2.14	3.44	8.9	0.0213	0.00216	0.250	0.0223	0.85	
26	6.80	4.60	0.20	0.14	2.77	2.2	bd1	bd1	0.078	bd1	bd1	
27	23.90	2.07	bd1	0.19	4.79	16.8	0.0154	0.00408	0.532	0.0212	0.30	
28	21.30	3.94	0.24	0.13	6.40	7.0	0.0133	0.00385	0.540	0.0178	0.34	
29	10.94	5.59	0.73	0.09	4.24	38.9	0.0123	0.00303	0.471	0.0148	1.39	
30	bd1	bd1	bd1	bd1	bd1	bd1	bd1	bd1	bd1	bd1	bd1	
31	26.10	2.30	0.83	bd1	3.22	25.7	0.0175	0.00285	0.438	0.0123	0.45	

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	31	31	31	29	-	-	-	-	-
A. MEAN	8.92	3.21	0.46	0.31	3.23	11.1	-	-	-	-	-
S.D.	8.05	2.41	0.29	0.37	1.88	9.3	-	-	-	-	-
MIN.	bd1	bd1	bd1	bd1	bd1	bd1	-	-	-	-	-
MAX.	31.19	9.19	1.25	2.14	6.58	38.9	-	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
2	42.4	42.3	-	4.30	2.3	1.240	0.2	0.33	0.173	0.03	0.05	0.02	0.007	1.11	1
5	8.3	7.8	-	4.20	3.0	1.726	0.2	0.29	0.146	0.07	0.10	0.03	0.003	1.01	1
8	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	1
11	3.8	3.4	-	4.00	4.5	-	0.2	0.73	-	0.11	0.14	0.13	0.069	-	1
12	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	1
13	1.2	1.4	-	4.10	4.4	2.877	0.3	0.40	0.719	0.09	0.22	0.16	0.106	1.10	1
22	3.1	2.9	-	7.10	12.9	2.081	1.2	1.31	1.740	0.35	0.55	1.02	0.570	0.60	1
30	14.0	11.4	-	3.80	6.3	3.364	0.1	0.43	0.506	0.05	0.03	0.04	0.007	1.13	1
31	18.4	17.3	-	4.10	3.2	1.240	0.1	0.24	0.103	0.03	0.02	bd1	0.007	-	1
TOTAL PRECIP	91.8	86.5	-	-	-	-	-	-	-	-	-	-	-	-	-
NO. OBS.	9	7	-	7	7	-	7	7	-	7	7	7	7	-	-
A. MEAN	10.2	12.4	-	4.12	5.2	-	0.3	0.53	-	0.10	0.16	0.20	0.110	-	-
STD. DEV.	13.6	14.3	-	4.32	3.6	-	0.4	0.38	-	0.11	0.19	0.37	0.207	-	-
MINIMUM	0.2	1.4	-	3.80	2.3	-	0.1	0.24	-	0.03	0.02	bd1	0.003	-	-
MAXIMUM	42.4	42.3	-	7.10	12.9	-	1.2	1.31	-	0.35	0.55	1.02	0.570	-	-
P.W. MEAN	-	-	-	4.13	3.6	-	0.2	0.37	-	0.05	0.07	0.06	0.030	-	-

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

SEPTEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS		PARTICULATE			
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2	Br	V	Al	Mn	Ca
1	7.06	6.92	0.39	0.15	2.58	2.6	bd1	0.00212	0.167	bd1	0.42
2	2.85	2.34	bd1	bd1	1.00	1.5	-	-	-	-	-
3	2.91	1.87	bd1	bd1	0.82	13.6	-	-	-	-	-
4	bd1	1.85	bd1	bd1	2.20	21.4	-	-	-	-	-
5	bd1	bd1	bd1	0.34	bd1	bd1	-	-	-	-	-
6	3.23	4.15	bd1	bd1	1.59	7.2	-	-	-	-	-
7	2.76	2.77	bd1	bd1	1.18	4.7	-	-	-	-	-
8	7.91	4.14	bd1	bd1	2.03	14.0	-	-	-	-	-
9	6.05	2.06	bd1	bd1	1.73	10.6	-	-	-	-	-
10	1.45	1.32	bd1	bd1	0.87	4.2	-	-	-	-	-
11	4.46	4.74	bd1	bd1	1.90	19.1	-	-	-	-	-
12	bd1	bd1	bd1	bd1	bd1	bd1	-	-	-	-	-
13	7.84	2.73	bd1	bd1	2.10	12.4	-	-	-	-	-
14	5.64	1.81	bd1	bd1	1.72	2.2	-	-	-	-	-
15	2.57	2.69	bd1	bd1	1.45	12.8	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-
25	6.90	4.42	bd1	bd1	1.86	15.5	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-
27	1.59	2.92	bd1	bd1	1.21	4.6	-	-	-	-	-
28	2.38	1.94	bd1	bd1	1.26	11.6	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-
30	7.22	3.41	bd1	0.10	1.40	32.8	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-	-	-	-	-	-
S.D.	-	-	-	-	-	-	-	-	-	-	-
MIN.	-	-	-	-	-	-	-	-	-	-	-
MAX.	-	-	-	-	-	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
1	7.1	7.2	-	4.20	2.2	1.151	0.1	0.21	0.148	0.02	0.03	bd1	0.001	-	1
2	16.0	14.3	-	4.30	2.0	1.417	0.1	0.16	0.250	0.02	0.07	bd1	0.005	-	1
9	3.3	3.3	-	4.00	3.1	1.948	0.2	0.27	0.276	0.04	0.18	0.01	0.013	1.39	1
13	40.2	39.1	-	3.90	5.1	2.435	0.1	0.30	0.583	0.03	0.08	0.01	0.005	1.20	1
22	20.2	17.9	-	4.10	4.1	1.859	0.1	0.30	0.551	0.05	0.11	0.06	0.031	1.13	1
25	14.4	20.5	-	3.90	4.1	4.161	0.2	0.28	0.637	0.04	0.08	0.03	0.004	1.16	1
TOTAL PRECIP	101.2	102.3													
NO. OBS.	6	6	-	6	6	6	6	6	6	6	6	-	6	-	
A. MEAN	16.9	17.1	-	4.04	3.4	2.162	0.1	0.25	0.408	0.03	0.09	-	0.010	-	
STD. DEV.	13.0	12.6	-	4.50	1.2	1.076	0.1	0.06	0.207	0.01	0.05	-	0.011	-	
MINIMUM	3.3	3.3	-	3.90	2.0	1.151	0.1	0.16	0.148	0.02	0.03	-	0.001	-	
MAXIMUM	40.2	39.1	-	4.30	5.1	4.161	0.2	0.30	0.637	0.05	0.18	-	0.031	-	
P.W. MEAN			-	4.00	4.0	2.299	0.1	0.27	0.491	0.03	0.08	-	0.010	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

OCTOBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS			PARTICULATE		
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2	Br	V	Al	Mn	Ca
1	0.91	0.81	bd1	bd1	bd1	2.5	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-
3	bd1	bd1	bd1	0.09	bd1	bd1	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-
5	0.56	bd1	bd1	bd1	bd1	1.1	-	-	-	-	-
6	3.11	4.67	0.20	bd1	1.43	10.4	-	-	-	-	-
7	5.39	6.89	0.21	0.08	2.23	18.4	-	-	-	-	-
8	4.96	4.44	0.30	0.09	2.01	11.7	-	-	-	-	-
9	7.36	7.17	0.45	0.23	2.23	99.4	-	-	-	-	-
10	1.56	0.96	bd1	bd1	0.98	6.7	-	-	-	-	-
11	0.96	bd1	bd1	bd1	bd1	bd1	-	-	-	-	-
12	bd1	bd1	bd1	bd1	bd1	bd1	-	-	-	-	-
13	0.54	1.28	bd1	bd1	1.00	bd1	-	-	-	-	-
14	1.38	1.35	bd1	bd1	1.30	2.3	-	-	-	-	-
15	3.38	5.48	0.36	bd1	1.84	26.6	-	-	-	-	-
16	6.64	7.36	0.48	0.13	2.54	16.4	-	-	-	-	-
17	6.50	2.46	bd1	0.15	2.56	13.3	-	-	-	-	-
18	1.75	2.16	bd1	bd1	1.44	4.7	-	-	-	-	-
19	2.31	2.07	bd1	bd1	1.60	8.0	-	-	-	-	-
20	2.72	2.74	bd1	bd1	1.79	9.6	-	-	-	-	-
21	1.38	1.29	bd1	bd1	0.94	2.5	-	-	-	-	-
22	1.11	0.69	bd1	bd1	0.90	3.3	-	-	-	-	-
23	1.48	1.38	bd1	bd1	0.94	13.2	-	-	-	-	-
24	2.55	2.60	bd1	0.08	1.46	21.1	-	-	-	-	-
25	1.35	0.71	bd1	0.71	0.91	4.4	-	-	-	-	-
26	1.33	bd1	bd1	0.68	bd1	7.6	-	-	-	-	-
27	4.40	5.06	bd1	bd1	2.09	15.4	-	-	-	-	-
28	1.81	2.45	bd1	bd1	1.02	3.0	-	-	-	-	-
29	1.63	1.60	bd1	bd1	0.82	3.5	-	-	-	-	-
30	2.58	6.74	0.23	bd1	2.02	19.9	-	-	-	-	-
31	1.92	5.42	0.25	bd1	1.96	13.1	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	29	29	-	-	29	29	-	-	-	-	-
A. MEAN	2.47	2.68	-	-	1.24	11.7	-	-	-	-	-
S.D.	2.00	2.42	-	-	0.82	18.4	-	-	-	-	-
MIN.	bd1	bd1	-	-	bd1	bd1	-	-	-	-	-
MAX.	7.36	7.36	-	-	2.56	99.4	-	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
1	2.2	2.3	-	4.00	5.5	2.877	0.2	0.70	0.737	0.10	0.20	0.07	0.012	1.17	1
2	2.2	2.3	-	3.90	2.4	4.825	0.2	0.45	0.428	0.08	0.31	0.24	-	1.47	1
3	6.3	6.5	-	4.50	2.0	2.745	0.1	0.50	0.471	0.10	0.18	0.03	0.007	1.11	1
11	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	1
14	13.1	12.7	-	4.50	1.5	0.930	bd1	0.25	0.139	0.03	0.02	0.01	0.003	-	1
16	1.3	1.6	-	4.50	8.5	6.552	0.6	-	1.038	-	0.38	0.13	-	-	1
17	23.2	21.2	-	4.10	3.4	1.859	0.3	0.33	0.184	0.06	0.16	0.02	0.002	1.09	1
20	5.3	5.2	-	4.40	1.8	2.479	bd1	0.31	0.523	0.06	0.02	0.02	0.002	-	1
25	21.3	19.5	-	4.50	1.2	1.107	bd1	0.23	0.057	0.03	0.02	0.01	0.003	-	1
27	4.4	4.6	-	4.10	2.8	4.073	0.1	0.31	0.649	0.03	0.03	0.05	0.003	1.08	1
TOTAL PRECIP	81.7	75.9													
NO. OBS.	10	9	-	9	9	9	-	8	9	8	9	9	7	-	
A. MEAN	8.2	8.4	-	4.21	3.2	3.050	-	0.39	0.470	0.06	0.15	0.06	0.005	-	
STD. DEV.	8.2	7.5	-	4.44	2.4	1.823	-	0.16	0.315	0.03	0.14	0.08	0.004	-	
MINIMUM	1.3	1.6	-	3.90	1.2	0.930	-	0.23	0.057	0.03	0.02	0.01	0.002	-	
MAXIMUM	23.2	21.2	-	4.50	8.5	6.552	-	0.70	1.038	0.10	0.38	0.24	0.012	-	
P.W. MEAN			-	4.27	2.4	1.926	-	0.31	0.250	0.05	0.09	0.03	0.003		

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

NOVEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	SO ₄ ⁼	PARTICULATE				GAS			PARTICULATE			
		NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂	Br	V	Al	Mn	Ca	
1	0.88	bd1	bd1	bd1	bd1	1.1	-	-	-	-	-	
2	2.27	2.16	bd1	bd1	1.01	11.2	-	-	-	-	-	
3	6.42	3.79	0.25	bd1	2.12	73.9	-	-	-	-	-	
4	3.54	3.29	0.25	bd1	1.93	5.7	-	-	-	-	-	
5	1.11	0.83	bd1	bd1	bd1	4.7	-	-	-	-	-	
6	2.48	4.56	0.32	bd1	1.68	20.0	-	-	-	-	-	
7	4.24	3.92	0.24	bd1	2.04	18.1	-	-	-	-	-	
8	4.88	1.90	0.22	bd1	1.59	33.5	-	-	-	-	-	
9	4.08	3.38	0.21	bd1	2.13	10.0	-	-	-	-	-	
10	2.67	0.97	0.29	bd1	1.21	1.2	-	-	-	-	-	
11	2.10	2.40	0.30	bd1	1.08	12.2	-	-	-	-	-	
12	5.78	6.55	0.34	0.16	3.02	48.5	-	-	-	-	-	
13	2.99	1.92	bd1	bd1	1.75	5.0	-	-	-	-	-	
14	1.84	0.99	bd1	bd1	bd1	2.6	0.0136	0.00035	0.074	bd1	0.47	
15	2.81	1.93	0.20	bd1	0.87	23.0	0.0166	0.00135	0.052	0.0061	0.53	
16	1.39	1.82	0.28	bd1	0.75	7.9	bd1	0.00216	0.066	0.0051	0.39	
17	1.76	3.36	0.43	bd1	0.90	12.7	0.0147	0.00251	0.120	0.0052	0.26	
18	2.99	2.26	0.44	0.14	1.10	7.9	bd1	0.00181	0.068	0.0047	0.26	
19	4.45	10.21	0.53	0.08	2.82	22.4	0.0227	0.00181	0.255	0.0174	0.75	
20	6.86	8.58	0.49	0.10	2.64	58.2	0.0248	0.00354	0.380	0.0278	0.54	
21	2.41	2.07	bd1	bd1	0.99	7.4	bd1	0.00208	0.110	bd1	1.51	
22	5.09	6.97	0.53	0.14	3.24	64.2	0.0164	0.00375	0.429	0.0257	0.54	
23	5.68	3.86	0.46	0.20	2.84	34.2	0.0220	0.00389	0.401	0.0264	0.40	
24	3.31	4.04	bd1	0.09	2.45	6.1	0.0209	0.00154	0.057	0.0053	0.50	
25	1.59	1.23	bd1	0.15	1.09	6.6	0.0140	0.00088	0.073	bd1	0.26	
26	2.13	5.03	0.21	0.14	2.04	12.9	0.0180	0.00155	0.133	0.0088	0.39	
27	2.03	2.18	bd1	0.19	1.44	5.8	0.0160	0.00317	0.069	bd1	bd1	
28	4.10	1.94	bd1	bd1	1.06	17.5	0.0117	0.00078	0.038	bd1	bd1	
29	2.85	3.22	bd1	0.07	1.19	12.4	bd1	0.00069	0.095	0.0096	bd1	
30	2.37	3.30	bd1	bd1	1.00	12.6	0.0114	0.00138	0.466	0.0096	0.61	

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	30	-	30	30	-	-	-	-	-	-
A. MEAN	3.24	3.29	0.20	-	1.53	18.7	-	-	-	-	-	-
S.D.	1.60	2.30	0.19	-	0.88	19.2	-	-	-	-	-	-
MIN.	0.88	bd1	bd1	-	bd1	1.1	-	-	-	-	-	-
MAX.	6.86	10.21	0.53	-	3.24	73.9	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS

(10^{-3} g l^{-1})

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
3	2.0	1.6	-	4.00	11.6	-	0.7	3.13	-	0.41	0.20	0.27	-	-	1
4	1.3	1.3	-	4.00	6.7	-	0.6	1.51	-	0.21	0.14	0.11	-	-	1
6	4.4	3.9	-	4.80	6.9	3.187	0.4	1.93	1.002	0.31	0.12	0.10	0.009	0.97	1
7	7.3	7.2	-	4.30	6.5	6.994	0.3	2.08	1.326	0.26	0.09	0.12	0.011	0.99	1
8	1.4	2.0	-	4.00	7.9	-	0.6	3.01	-	0.22	0.45	0.16	-	-	1
14	3.3	3.3	-	4.00	5.8	5.533	0.3	1.74	0.954	0.29	0.13	0.09	0.001	1.25	1
17	2.0	1.3	-	-	3.5	-	1.0	1.48	-	0.22	0.46	0.46	-	-	2
23	1.2	1.6	-	3.90	6.6	8.854	0.6	-	1.535	-	0.16	0.10	-	-	1
27	8.4	6.8	-	4.30	2.5	1.664	0.1	0.32	0.225	0.04	0.08	0.05	0.008	1.05	3
TOTAL PRECIP	31.3	29.0													
NO. OBS.	9	9	-	8	9	-	9	8	-	8	9	9	-	-	
A. MEAN	3.5	3.2	-	4.10	6.4	-	0.5	1.90	-	0.25	0.20	0.16	-	-	
STD. DEV.	2.7	2.3	-	4.43	2.6	-	0.3	0.90	-	0.11	0.15	0.13	-	-	
MINIMUM	1.2	1.3	-	3.90	2.5	-	0.1	0.32	-	0.04	0.08	0.05	-	-	
MAXIMUM	8.4	7.2	-	4.80	11.6	-	1.0	3.13	-	0.41	0.46	0.46	-	-	
P.W. MEAN			-	4.21	5.6	-	0.4	1.58	-	0.21	0.15	0.13	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

DECEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS			PARTICULATE		
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2	Br	V	Al	Mn	Ca
1	4.01	9.14	0.26	0.33	2.79	9.6	0.0247	0.00306	0.347	0.0142	0.41
2	1.67	bd1	bd1	bd1	bd1	8.5	bd1	0.00152	0.491	0.0106	0.52
3	1.46	1.03	0.28	0.28	bd1	10.5	bd1	0.00126	0.327	0.0164	2.51
4	1.16	1.90	0.75	0.29	bd1	26.3	0.0175	0.00379	0.156	0.0133	0.68
5	1.96	2.63	0.64	0.28	1.20	23.6	0.0240	0.00548	0.209	0.0166	0.69
6	5.79	8.36	0.99	0.53	3.16	22.7	0.0527	0.01316	0.620	0.0291	1.24
7	4.59	6.66	0.49	0.11	2.91	8.3	0.0233	0.00425	0.180	0.0083	bd1
8	3.55	2.03	0.30	0.20	1.03	8.1	0.0205	0.00136	0.099	bd1	bd1
9	2.80	1.05	0.23	0.08	0.76	12.3	0.0123	0.00104	0.096	bd1	bd1
10	2.24	0.89	bd1	bd1	bd1	4.7	0.0109	0.00072	0.136	bd1	0.25
11	1.97	2.28	0.31	0.14	0.66	15.9	0.0126	0.00128	0.223	0.0077	0.76
12	5.81	5.73	0.28	0.08	2.28	24.2	0.0277	0.00252	0.257	0.0102	0.33
13	1.84	1.09	0.20	0.13	0.68	5.8	0.0141	0.00098	0.344	0.0065	0.51
14	1.16	0.79	0.21	0.14	bd1	3.9	bd1	0.00452	1.536	0.0284	1.02
15	3.36	4.59	0.94	0.44	1.19	48.4	0.0481	0.00456	0.555	0.0282	0.46
16	2.80	3.42	0.57	0.44	1.12	17.3	0.0201	0.00197	0.169	0.0079	0.51
17	3.44	3.56	0.28	0.21	1.13	21.3	0.0105	0.00167	0.179	0.0093	0.45
18	1.95	2.66	0.28	0.10	0.81	12.2	0.0147	0.00224	0.581	0.0122	0.73
19	0.86	0.96	1.52	0.92	bd1	2.8	0.0129	0.00244	0.799	0.0150	1.24
20	1.59	1.71	0.51	0.41	bd1	5.6	bd1	0.00275	0.355	0.0069	0.80
21	3.22	3.00	0.72	0.48	0.93	15.0	0.0117	0.00469	0.330	0.0081	1.11
22	6.01	5.19	0.64	0.53	1.40	73.9	0.0255	0.00312	0.676	0.0251	0.53
23	7.06	8.97	0.35	0.45	2.50	31.5	0.0331	0.00375	0.547	0.0146	0.82
24	1.81	1.84	0.28	0.15	0.71	6.7	0.0143	0.00172	0.719	0.0112	bd1
25	2.57	2.19	0.19	0.13	bd1	13.3	0.0163	0.00152	0.256	0.0053	bd1
26	3.98	4.47	0.25	0.12	1.23	42.5	0.0170	0.00172	0.270	0.0073	0.25
27	7.33	8.56	0.45	0.14	2.27	51.5	0.0289	0.00496	0.263	0.0119	0.38
28	6.99	3.43	0.32	0.15	1.38	86.9	0.0305	0.00087	0.506	0.0200	bd1
29	7.46	5.61	0.40	0.15	3.25	38.0	0.0287	0.00233	0.104	0.0071	bd1
30	0.44	bd1	0.26	0.09	bd1	48.1	0.0168	0.00067	0.035	0.0073	bd1
31	2.48	2.99	0.95	0.77	1.40	31.1	0.0282	0.00430	0.157	0.0060	0.45

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	31	31	31	31	31	31	31	31	31
A. MEAN	3.33	3.44	0.45	0.27	1.12	23.6	0.0193	0.00291	0.372	0.0118	0.54
S.D.	2.07	2.67	0.32	0.22	1.03	20.8	0.0124	0.00237	0.298	0.0078	0.53
MIN.	0.44	bd1	bd1	bd1	bd1	2.8	bd1	0.00067	0.035	bd1	bd1
MAX.	7.46	9.14	1.52	0.92	3.25	86.9	0.0527	0.01316	1.536	0.0291	2.51

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
1	15.8	15.6	-	3.90	4.0	5.047	0.4	0.38	0.534	0.06	0.16	0.04	0.024	1.07	1
6	8.6	8.8	-	4.80	5.1	4.205	0.4	2.28	0.773	0.21	0.21	0.03	0.022	1.08	1
7	3.0	3.6	-	3.90	5.3	5.888	0.7	0.32	1.308	0.07	0.27	0.03	0.009	1.03	1
8	6.2	6.5	-	4.30	2.8	1.549	0.5	0.35	0.373	0.08	0.29	bd1	0.007	-	1
10	1.4	2.6	-	4.50	0.7	0.930	0.6	0.28	0.070	0.05	bd1	bd1	-	-	2
14	1.2	1.3	-	4.40	8.9	-	1.5	-	-	-	-	-	-	-	2
23	1.1	2.0	-	4.10	6.0	11.864	1.5	3.08	1.280	0.61	1.00	0.08	-	1.12	2
25	4.8	2.9	-	5.00	3.3	8.190	0.9	2.62	0.420	0.56	0.36	0.02	0.032	1.00	2
29	5.2	3.9	-	4.40	2.1	2.435	0.4	0.64	0.176	0.12	0.22	bd1	0.026	-	3
TOTAL PRECIP	47.3	47.2													
NO. OBS.	9	9	-	9	9	8	9	8	8	8	8	-	-	-	
A. MEAN	5.3	5.2	-	4.24	4.2	5.014	0.8	1.24	0.617	0.22	0.31	-	-	-	
STD. DEV.	4.7	4.5	-	4.36	2.4	3.660	0.4	1.20	0.469	0.23	0.30	-	-	-	
MINIMUM	1.1	1.3	-	3.90	0.7	0.930	0.4	0.28	0.070	0.05	bd1	-	-	-	
MAXIMUM	15.8	15.6	-	5.00	8.9	11.864	1.5	3.08	1.308	0.61	1.00	-	-	-	
P.W. MEAN			-	4.16	3.9	4.544	0.5	1.05	0.559	0.16	0.24	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

JANUARY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS			PARTICULATE		
	SO_4^-	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2	Br	V	Al	Mn	Ca
1	2.26	2.33	0.38	0.26	1.24	22.4	0.0201	0.00245	0.180	bd1	bd1
2	1.27	bd1	0.22	0.20	0.83	11.5	bd1	0.00134	0.372	0.0040	bd1
3	1.38	bd1	0.31	bd1	0.77	10.1	0.0122	0.00113	0.083	bd1	bd1
4	0.92	bd1	0.23	bd1	0.49	9.3	0.0098	0.00174	0.564	0.0060	0.23
5	4.61	2.61	0.24	bd1	0.81	32.2	0.0188	0.00331	0.206	0.0093	bd1
6	3.95	2.35	0.27	bd1	1.07	80.4	0.0197	0.00264	0.231	0.0118	bd1
7	1.42	bd1	0.34	0.19	0.43	5.5	0.0093	0.00143	0.508	0.0065	0.38
8	1.02	1.41	0.27	bd1	0.58	13.2	0.0102	0.00106	0.051	bd1	bd1
9	2.22	2.06	0.49	0.32	0.92	30.2	0.0114	0.00161	0.094	0.0074	0.30
10	0.80	0.71	0.36	0.20	0.67	4.8	0.0087	0.00066	0.080	bd1	bd1
11	1.06	bd1	0.57	0.38	0.51	23.2	0.0081	0.00200	0.080	bd1	bd1
12	2.80	3.40	0.41	0.22	0.98	40.8	0.0158	0.00213	0.214	0.0155	0.25
13	7.64	5.99	0.48	0.51	1.92	106.9	0.0322	0.00535	0.522	0.0326	0.47
14	10.87	8.31	0.68	0.26	3.10	162.8	0.0395	0.00724	0.566	0.0419	0.32
15	12.44	10.08	0.41	0.33	3.03	110.6	0.0616	0.01332	0.403	0.0451	0.41
16	9.09	6.63	0.23	bd1	2.27	58.3	0.0338	0.00731	0.089	0.0335	0.52
17	4.64	4.90	0.23	bd1	1.41	33.1	0.0134	0.00190	0.106	0.0048	0.31
18	3.50	7.25	bd1	bd1	1.78	23.3	0.0189	0.00412	0.154	0.0113	0.25
19	12.91	23.50	1.00	0.29	5.91	99.8	0.0509	0.00883	0.556	0.0397	1.22
20	1.62	1.98	0.40	bd1	0.53	55.9	bd1	0.00069	0.034	bd1	bd1
21	5.75	6.68	0.48	bd1	2.38	21.1	0.0156	0.00173	0.091	0.0083	bd1
22	1.11	2.81	0.33	bd1	0.76	4.7	0.0154	0.00062	0.036	bd1	bd1
23	2.86	4.08	0.39	bd1	1.11	17.5	0.0125	0.00196	0.049	0.0048	bd1
24	4.31	3.79	0.36	bd1	1.37	72.9	0.0117	0.00186	0.223	0.0122	bd1
25	bd1	bd1	bd1	bd1	bd1	0.7	bd1	bd1	bd1	bd1	bd1
26	1.83	2.66	0.23	bd1	0.76	9.3	0.0084	0.00057	0.190	0.0067	0.32
27	1.56	1.69	bd1	bd1	0.75	5.4	bd1	0.00040	0.041	bd1	bd1
28	1.47	2.41	bd1	bd1	0.46	33.6	0.0107	0.00189	0.073	0.0052	bd1
29	2.76	2.67	0.37	0.16	1.03	20.8	0.0201	0.00134	bd1	bd1	0.37
30	2.67	2.01	0.43	0.33	1.07	10.8	0.0111	0.00236	0.071	0.0045	0.31
31	4.53	4.20	0.27	0.29	1.30	43.7	0.0211	0.00522	0.158	0.0052	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	31	-	31	31	31	31	31	31	-
A. MEAN	3.72	3.76	0.33	-	1.30	37.9	0.0168	0.00285	0.194	0.0102	-
S.D.	3.45	4.51	0.20	-	1.13	38.8	0.0141	0.00291	0.182	0.0135	-
MIN.	bd1	bd1	bd1	-	bd1	0.7	bd1	bd1	bd1	bd1	-
MAX.	12.91	23.50	1.00	-	5.91	162.8	0.0616	0.01332	0.566	0.0451	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	SO_4^-	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	+VE/-VE	
1	3.4	2.6	-	4.20	1.0	4.028	1.1	0.50	0.030	0.08	0.59	0.06	0.020	1.05	2
9	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	2
15	1.0	0.3	-	-	9.3	20.390	5.2	-	1.846	-	-	-	-	-	2
27	2.2	1.6	-	3.80	6.1	9.925	1.9	2.05	1.567	0.36	1.57	0.16	-	1.32	2
28	4.0	2.6	-	3.80	3.1	7.915	1.0	0.36	0.771	0.06	0.29	0.05	0.002	1.07	2
TOTAL PRECIP	13.9	7.1													
NO. OBS.	5	4	-	-	4	4	4	-	4	-	-	-	-	-	
A. MEAN	2.8	1.8	-	-	4.9	10.565	2.3	-	1.054	-	-	-	-	-	
STD. DEV.	1.2	1.1	-	-	3.6	6.993	2.0	-	0.820	-	-	-	-	-	
MINIMUM	1.0	0.3	-	-	1.0	4.028	1.0	-	0.030	-	-	-	-	-	
MAXIMUM	4.0	2.6	-	-	9.3	20.390	5.2	-	1.846	-	-	-	-	-	
P.W. MEAN			-	-	3.6	8.262	1.6	-	0.800	-	-	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

FEBRUARY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS			PARTICULATE		
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2	Br	V	Al	Mn	Ca
1	0.76	bd1	bd1	bd1	bd1	30.3	bd1	bd1	bd1	bd1	bd1
2	2.43	3.03	0.23	bd1	0.90	23.1	0.0081	0.00124	0.216	0.0052	0.25
3	1.88	1.70	bd1	bd1	bd1	19.4	bd1	0.00166	0.193	0.0044	bd1
4	0.57	0.83	0.28	bd1	bd1	14.8	bd1	0.00121	0.153	bd1	bd1
5	2.56	1.62	0.24	bd1	0.58	60.6	0.0163	0.00314	0.215	0.0260	0.32
6	3.29	3.91	0.30	bd1	1.37	34.4	0.0092	0.00138	0.208	0.0117	bd1
7	3.32	3.43	0.30	bd1	1.23	49.9	0.0070	0.00183	0.327	0.0122	bd1
8	2.78	3.63	0.51	bd1	1.19	16.5	bd1	0.00326	1.140	0.0222	0.75
9	2.81	4.80	0.47	bd1	0.91	29.8	0.0114	0.00249	1.030	0.0164	0.58
10	2.64	1.94	0.30	bd1	0.65	29.4	0.0132	0.00322	0.352	0.0072	bd1
11	2.40	1.33	0.25	bd1	0.52	20.0	0.0085	0.00261	0.909	0.0096	0.33
12	4.65	3.21	0.25	0.21	1.00	42.2	0.0143	0.00433	0.600	0.0204	bd1
13	10.35	4.79	0.54	0.39	1.59	142.8	0.0318	0.00443	1.035	0.0510	bd1
14	9.03	8.52	0.40	0.40	2.28	87.8	0.0394	0.00607	0.706	0.0370	0.68
15	8.53	6.18	0.51	0.46	1.90	109.9	0.0401	0.00564	1.079	0.0448	0.78
16	6.41	5.98	0.56	0.23	1.46	18.0	0.0263	0.00412	0.330	0.0229	bd1
17	3.84	2.21	bd1	bd1	bd1	14.5	0.0091	0.00144	bd1	0.0072	bd1
18	3.78	1.07	bd1	bd1	0.58	11.5	0.0126	0.00207	0.055	0.0051	bd1
19	3.13	bd1	bd1	bd1	bd1	15.4	0.0201	0.00214	bd1	0.0214	bd1
20	5.84	2.06	bd1	bd1	1.80	8.4	0.0241	0.00092	bd1	bd1	bd1
21	8.07	4.14	bd1	bd1	2.42	2.4	0.0132	0.00220	0.237	bd1	bd1
22	4.08	1.84	0.31	0.23	1.06	11.1	0.0126	0.00253	0.055	0.0107	0.39
23	1.88	1.38	bd1	bd1	0.64	9.4	bd1	0.00100	0.079	bd1	bd1
24	1.26	0.81	bd1	bd1	0.44	5.4	bd1	0.00061	bd1	bd1	bd1
25	1.96	bd1	bd1	bd1	0.59	1.6	bd1	0.00034	bd1	bd1	0.26
26	2.39	1.34	0.57	0.24	0.92	11.2	0.0128	0.00042	0.085	bd1	0.75
27	5.68	3.03	bd1	0.16	1.35	33.2	0.0239	0.00181	0.286	0.0174	0.26
28	4.33	2.80	bd1	bd1	1.63	3.4	0.0128	0.00076	0.085	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	28	-	28	28	28	28	28	28	-
A. MEAN	3.95	2.70	0.22	-	0.96	30.6	0.0131	0.00225	0.335	0.0126	-
S.D.	2.54	2.04	0.21	-	0.69	33.4	0.0115	0.00157	0.377	0.0141	-
MIN.	0.57	bd1	bd1	-	bd1	1.6	bd1	bd1	bd1	bd1	-
MAX.	10.35	8.52	0.57	-	2.42	142.8	0.0401	0.00607	1.140	0.0510	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$ ION BAL.
RATIO

PRECIP

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
1	18.2	16.3	-	4.30	2.4	1.603	0.2	0.11	0.099	0.02	0.14	0.01	0.008	0.84	3
3	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	2
5	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2
9	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2
10	19.4	18.9	-	4.30	1.6	1.926	0.3	0.24	0.151	0.03	0.12	0.07	0.007	1.12	3
11	3.6	0.7	-	-	3.2	3.705	0.6	-	0.292	-	-	-	-	-	2
16	4.2	4.6	-	4.10	3.5	2.904	1.0	0.31	0.261	0.05	0.35	0.08	0.009	0.89	1
18	0.2	1.0	-	3.60	6.0	9.040	1.3	-	0.873	-	-	-	-	-	1
22	15.4	15.3	-	4.20	2.8	2.063	0.1	0.10	0.250	0.01	0.12	0.07	0.002	0.97	1
23	8.4	9.1	-	4.40	1.2	0.815	bd1	0.08	0.054	bd1	0.12	0.04	0.003	-	1
27	6.4	6.8	-	3.90	6.1	5.312	bd1	0.63	0.984	0.09	0.17	0.07	0.010	-	1
TOTAL PRECIP	79.0	72.7													
NO. OBS.	11	8	-	-	8	8	8	-	8	-	-	-	-	-	
A. MEAN	7.2	9.1	-	-	3.4	3.421	0.4	-	0.371	-	-	-	-	-	
STD. DEV.	7.2	7.1	-	-	1.8	2.664	0.5	-	0.355	-	-	-	-	-	
MINIMUM	0.2	0.7	-	-	1.2	0.815	bd1	-	0.054	-	-	-	-	-	
MAXIMUM	19.4	18.9	-	-	6.1	9.040	1.3	-	0.984	-	-	-	-	-	
P.W. MEAN			-	-	2.6	2.197	0.2	-	0.233	-	-	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

MARCH 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS			PARTICULATE		
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2	Br	V	Al	Mn	Ca
1	5.58	2.86	bd1	bd1	1.63	1.9	0.0100	0.00125	0.092	bd1	bd1
2	1.56	0.83	bd1	bd1	0.48	1.6	bd1	0.00036	0.137	bd1	bd1
3	2.22	2.18	0.26	bd1	0.70	16.8	bd1	0.00134	0.196	0.0074	0.46
4	6.36	7.20	0.29	bd1	1.92	40.4	0.0193	0.00285	0.287	0.0219	0.35
5	4.39	6.41	0.26	bd1	1.75	23.6	0.0130	0.00401	0.168	0.0127	bd1
6	2.81	1.74	0.30	bd1	0.79	12.7	0.0133	0.00082	0.063	0.0171	0.33
7	3.14	0.85	bd1	bd1	0.82	5.3	0.0113	0.00021	bd1	bd1	0.33
8	2.58	1.32	0.30	bd1	0.81	5.8	0.0092	bd1	bd1	bd1	0.60
9	4.35	7.87	bd1	bd1	2.80	7.7	0.0176	0.00193	0.140	0.0076	0.26
10	5.87	10.83	bd1	bd1	3.45	11.1	0.0166	0.00248	0.086	0.0071	0.27
11	bd1	bd1	bd1	bd1	bd1	4.3	bd1	0.00025	0.030	bd1	bd1
12	2.77	6.11	0.31	bd1	2.22	10.4	0.0086	0.00193	0.520	0.0173	0.88
13	1.64	0.83	bd1	bd1	0.81	3.5	0.0069	0.00113	0.201	0.0100	0.39
14	2.03	3.14	0.25	0.22	1.49	10.7	0.0092	0.00116	0.207	0.0051	0.47
15	3.85	5.20	bd1	bd1	2.43	13.0	0.0154	0.00180	0.728	0.0180	1.14
16	1.59	2.74	0.30	bd1	0.99	4.3	0.0114	0.00125	0.606	0.0160	0.75
17	1.29	bd1	bd1	bd1	bd1	bd1	0.0122	0.00421	2.933	0.0456	1.32
18	1.38	bd1	bd1	bd1	0.57	5.5	0.0127	0.00145	0.243	0.0048	0.54
19	1.84	bd1	0.36	bd1	0.67	7.2	0.0123	0.00047	0.095	bd1	0.46
20	2.46	1.44	bd1	bd1	0.93	17.8	0.0173	0.00131	0.102	bd1	0.29
21	4.19	3.24	0.33	bd1	1.72	8.0	0.0359	0.00294	0.111	0.0048	0.40
22	4.12	4.79	0.52	0.26	1.85	11.2	0.0250	0.00388	0.192	0.0092	1.04
23	7.15	5.93	0.98	0.41	2.39	22.6	0.0332	0.00694	0.191	0.0512	5.39
24	3.56	2.74	0.40	bd1	1.50	7.3	0.0118	0.00123	0.069	0.0061	0.33
25	2.87	2.07	0.26	bd1	0.80	10.3	0.0092	0.00301	0.090	0.0144	0.47
26	5.31	5.35	0.63	0.25	1.96	14.5	0.0146	0.00150	0.309	0.0129	0.34
27	7.58	5.48	0.46	bd1	2.44	15.4	0.0188	0.00103	0.104	0.0054	0.54
28	10.04	5.83	0.43	bd1	2.26	53.1	0.0235	0.00540	0.873	0.0316	0.83
29	8.80	3.64	0.55	bd1	2.41	17.9	0.0270	0.00404	0.672	0.0227	0.73
30	bd1	bd1	bd1	bd1	bd1	bd1	bd1	0.00036	0.056	bd1	bd1
31	7.02	9.15	bd1	bd1	3.35	16.6	0.0147	0.00484	1.767	0.0233	1.06

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	31	-	31	31	31	31	31	31	31
A. MEAN	3.82	3.54	0.23	-	1.48	12.3	0.0139	0.00211	0.363	0.0120	0.64
S.D.	2.51	2.93	0.24	-	0.95	11.2	0.0087	0.00171	0.594	0.0129	0.95
MIN.	bd1	bd1	bd1	-	bd1	bd1	bd1	bd1	bd1	bd1	bd1
MAX.	10.04	10.83	0.98	-	3.45	53.1	0.0359	0.00694	2.933	0.0512	5.39

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	+VE/-VE	
5	2.0	2.0	-	3.80	3.4	10.226	bd1	0.68	0.560	0.09	0.32	0.05	-	-	2
10	1.2	1.3	-	-	7.9	17.353	0.8	-	2.911	-	-	-	-	-	2
16	3.6	-	-	-	-	-	-	-	-	-	-	-	-	-	2
18	1.4	1.3	-	-	2.9	-	0.1	-	-	-	-	-	-	-	2
20	4.0	1.3	-	-	4.6	3.356	0.2	-	0.619	-	-	-	-	-	2
29	6.0	-	-	-	-	-	-	-	-	-	-	-	-	-	1
30	3.3	2.3	-	4.50	5.3	4.648	bd1	1.81	1.077	0.34	0.42	0.08	-	-	1
TOTAL PRECIP	21.5	8.2													
NO. OBS.	7	5	-	-	5	-	-	-	-	-	-	-	-	-	
A. MEAN	3.1	1.6	-	-	4.8	-	-	-	-	-	-	-	-	-	
STD. DEV.	1.7	0.5	-	-	2.0	-	-	-	-	-	-	-	-	-	
MINIMUM	1.2	1.3	-	-	2.9	-	-	-	-	-	-	-	-	-	
MAXIMUM	6.0	2.3	-	-	7.9	-	-	-	-	-	-	-	-	-	
P.W. MEAN			-	-	4.7	-	-	-	-	-	-	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

APRIL 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS			PARTICULATE		
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2	Br	V	Al	Mn	Ca
1	2.07	1.52	bd1	bd1	0.91	4.3	0.0087	0.00444	2.476	0.0353	1.04
2	1.96	2.65	bd1	bd1	1.11	11.1	0.0127	0.00289	0.538	0.0206	0.95
3	4.93	3.61	bd1	bd1	2.14	16.6	0.0168	0.00243	0.896	0.0258	1.06
4	2.85	2.14	bd1	bd1	1.30	6.5	0.0094	0.00304	1.125	0.0213	0.44
5	2.65	0.97	bd1	bd1	1.16	2.7	bd1	0.00093	0.272	0.0060	0.38
6	1.31	3.08	0.35	bd1	0.76	3.3	0.0115	0.00151	0.548	0.0191	0.78
7	3.30	3.96	bd1	bd1	1.11	35.9	0.0147	0.00421	0.574	0.0283	0.91
8	3.54	2.36	0.47	0.22	1.50	27.6	0.0156	0.00167	0.445	0.0124	0.86
9	0.54	bd1	bd1	bd1	bd1	5.5	bd1	0.00112	0.450	0.0069	bd1
10	3.31	3.85	0.29	bd1	1.42	14.5	0.0154	0.00543	1.129	0.0330	1.09
11	1.42	1.79	bd1	bd1	0.90	5.3	0.0077	0.00121	0.345	0.0061	bd1
12	1.95	2.52	0.34	bd1	1.17	12.7	0.0137	0.00356	0.250	0.0067	0.46
13	4.13	3.12	bd1	0.22	1.80	6.5	0.0139	0.00494	0.245	0.0079	0.49
14	1.43	bd1	bd1	bd1	0.62	2.5	0.0082	bd1	0.134	bd1	0.32
15	0.58	bd1	bd1	0.17	bd1	6.1	bd1	0.00036	0.031	bd1	bd1
16	4.59	5.03	bd1	bd1	2.00	16.5	0.0183	0.00313	0.369	0.0264	0.47
17	7.04	4.41	bd1	bd1	3.63	3.4	0.0123	0.00473	1.503	0.0210	0.29
18	1.65	bd1	bd1	bd1	1.10	bd1	0.0133	0.00213	0.895	0.0131	0.47
19	2.54	2.98	bd1	bd1	1.55	6.6	0.0151	0.00360	0.227	0.0051	0.48
20	1.88	1.21	bd1	bd1	1.08	2.3	0.0136	0.00066	0.274	0.0060	0.39
21	1.58	2.69	0.26	0.19	1.11	27.2	0.0200	0.00259	0.294	0.0157	0.74
22	3.04	5.24	0.32	bd1	1.41	15.3	0.0269	0.00540	0.440	0.0266	1.21
23	4.14	2.58	bd1	bd1	1.22	3.9	0.0148	0.00290	1.131	0.0168	0.44
24	2.30	bd1	bd1	bd1	0.59	5.8	0.0070	0.00040	bd1	bd1	bd1
25	1.94	bd1	bd1	bd1	0.65	1.0	0.0093	0.00060	0.046	bd1	bd1
26	3.35	3.89	bd1	bd1	1.76	10.3	0.0105	0.00479	0.090	0.0068	0.33
27	4.67	5.80	0.23	bd1	1.70	6.4	0.0125	0.00393	0.272	0.0068	1.00
28	3.86	6.40	0.31	bd1	2.08	7.2	0.0114	0.00421	0.263	0.0151	bd1
29	4.14	1.88	bd1	bd1	1.39	1.9	bd1	0.00052	0.090	bd1	0.28
30	4.42	2.68	bd1	bd1	1.88	11.2	0.0159	0.00319	0.469	0.0149	1.05

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	30	30	30	30	30	30	30
A. MEAN	2.90	2.54	-	-	1.30	9.3	0.0116	0.00268	0.527	0.0134	0.53
S.D.	1.46	1.81	-	-	0.69	8.5	0.0061	0.00168	0.527	0.0104	0.39
MIN.	0.54	bd1	-	-	bd1	bd1	bd1	bd1	bd1	bd1	bd1
MAX.	7.04	6.40	-	-	3.63	35.9	0.0269	0.00543	2.476	0.0353	1.21

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH												ION BAL. RATIO	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE		
4	4.2	2.9	-	4.40	9.4	5.843	0.9	3.28	1.292	0.44	0.69	0.24	0.012	1.10	1	1
8	3.0	2.3	-	5.10	6.1	4.073	0.6	2.51	0.833	0.36	0.34	0.11	0.014	1.08	1	1
10	2.0	2.0	-	4.10	5.9	4.205	0.5	1.13	0.779	0.17	0.37	0.05	0.000	1.03	1	1
11	3.4	2.3	-	4.10	8.9	5.976	bd1	1.83	1.861	0.30	0.45	0.11	0.045	-	1	1
12	9.4	8.1	-	4.30	3.4	1.284	bd1	0.30	0.313	0.06	0.08	0.01	0.004	-	1	1
13	23.2	22.5	-	4.10	4.0	2.346	bd1	0.20	0.327	0.05	0.31	0.02	0.023	-	1	1
16	4.0	4.6	-	3.70	8.6	8.809	0.6	0.70	1.384	0.12	0.30	0.06	0.008	0.99	1	1
17	5.2	4.9	-	4.30	5.2	4.294	bd1	0.62	1.552	0.12	0.18	0.10	0.008	-	1	1
22	18.1	15.3	-	4.10	3.5	3.143	bd1	0.55	0.376	0.08	0.12	0.02	0.003	-	1	1
23	3.4	3.6	-	4.00	4.5	5.268	bd1	0.34	0.931	0.07	0.14	0.03	0.007	-	1	1
27	15.2	15.6	-	4.30	2.7	1.992	bd1	0.27	0.559	0.05	0.03	0.01	0.001	-	1	1
28	18.2	18.9	-	4.10	3.4	2.656	bd1	0.20	0.501	0.03	0.07	0.02	0.003	-	1	1

TOTAL PRECIP 109.3 103.0

NO. OBS.	12	12	-	12	12	12	-	12	12	12	12	12	12	-	-	-
A. MEAN	9.1	8.6	-	4.13	5.5	4.157	-	0.99	0.892	0.15	0.26	0.07	0.011	-	-	-
STD. DEV.	7.5	7.4	-	4.33	2.4	2.101	-	1.02	0.520	0.14	0.19	0.07	0.013	-	-	-
MINIMUM	2.0	2.0	-	3.70	2.7	1.284	-	0.20	0.313	0.03	0.03	0.01	bd1	-	-	-
MAXIMUM	23.2	22.5	-	5.10	9.4	8.809	-	3.28	1.861	0.44	0.69	0.24	0.045	-	-	-
P.W. MEAN			-	4.14	4.3	3.138	-	0.57	0.618	0.09	0.19	0.04	0.009	-	-	-

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

NG POINT

MAY 1981

CONCENTRATIONS (10^{-6} gm^{-3})

DAY	SO ₄ ⁼	NO ₃ ⁻	PARTICULATE		NH ₄ ⁺	GAS		V	PARTICULATE		Ca
			Cl ⁻	Na ⁺		SO ₂	Br		Al	Mn	
1	2.48	1.87	0.33	bd1	1.19	13.1	0.0170	0.00250	0.601	0.0250	1.73
2	2.20	1.23	0.24	bd1	0.83	11.2	0.0078	0.00267	0.350	0.0130	1.01
3	3.89	3.15	0.23	bd1	1.22	12.5	0.0100	0.00449	0.575	0.0111	1.37
4	16.58	4.37	bd1	bd1	6.10	43.5	0.0269	0.00835	1.229	0.0337	1.32
5	11.60	5.93	bd1	bd1	7.52	14.8	0.0151	0.00288	0.526	0.0199	0.65
6	1.07	1.04	bd1	bd1	2.22	1.0	bd1	0.00061	0.457	0.0143	0.67
7	1.19	2.60	bd1	bd1	1.65	12.1	0.0100	0.00169	0.423	0.0175	1.35
8	0.86	1.67	bd1	bd1	1.44	14.5	bd1	0.00119	0.240	0.0057	0.74
9	4.54	5.73	0.36	0.49	5.46	25.0	0.0133	0.00392	0.586	0.0186	0.40
10	4.90	7.14	0.51	0.20	7.42	15.1	0.0165	0.00360	0.310	0.0088	bd1
11	2.53	2.69	bd1	bd1	1.37	6.7	0.0128	0.00191	0.046	bd1	bd1
12	bd1	bd1	bd1	bd1	bd1	1.8	bd1	bd1	0.031	bd1	0.43
13	2.97	2.45	bd1	bd1	1.18	9.2	0.0093	0.00292	0.293	0.0083	0.40
14	3.89	4.25	0.39	0.20	1.96	13.1	0.0099	0.00103	0.228	0.0103	0.33
15	5.00	5.71	bd1	bd1	2.54	12.0	0.0166	0.00303	0.095	0.0147	bd1
16	3.11	0.86	bd1	bd1	1.30	12.6	0.0084	0.00020	0.136	0.0061	0.32
17	3.50	1.79	bd1	bd1	1.50	9.8	0.0113	0.00248	0.269	0.0193	0.81
18	2.97	2.35	bd1	bd1	0.84	13.0	0.0089	0.00247	0.455	0.0200	0.92
19	3.34	3.30	bd1	bd1	1.34	24.6	0.0184	0.00456	0.645	0.0174	1.22
20	2.30	2.06	bd1	bd1	0.94	4.2	bd1	0.00215	0.796	0.0129	1.85
21	5.81	5.00	bd1	bd1	2.20	14.5	0.0148	0.00514	1.217	0.0311	1.29
22	8.96	9.19	bd1	bd1	3.54	9.7	0.0187	0.00683	2.350	0.0514	4.13
23	14.26	10.97	0.36	0.24	4.76	15.3	0.0361	0.00814	2.115	0.0844	3.05
24	15.23	6.49	bd1	bd1	4.39	24.6	0.0243	0.00865	1.485	0.0349	2.39
25	6.32	5.77	1.26	0.63	2.75	12.6	0.0140	0.00366	0.658	0.0168	0.75
26	5.97	7.06	0.61	0.25	2.71	16.2	0.0206	0.00586	1.038	0.0375	1.19
27	5.53	6.67	0.30	bd1	3.03	15.8	0.0164	0.00313	0.291	0.0161	0.31
28	13.36	5.94	0.27	bd1	4.17	9.9	0.0370	0.00303	0.297	0.0160	0.70
29	12.14	6.85	0.30	bd1	4.48	20.4	0.0187	0.00610	0.545	0.0162	0.35
30	3.64	3.22	bd1	bd1	1.66	2.5	0.0152	0.00483	0.217	0.0074	1.10
31	1.89	1.85	bd1	bd1	0.95	3.4	bd1	0.00187	0.174	0.0048	0.85

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	31	31	31	31	31	31	31
A. MEAN	5.55	4.17	-	-	2.67	13.4	0.0138	0.00354	0.602	0.0191	1.02
S.D.	4.58	2.64	-	-	1.98	8.3	0.0093	0.00231	0.562	0.0166	0.89
MIN.	bd1	bd1	-	-	bd1	1.0	bd1	bd1	0.031	bd1	bd1
MAX.	16.58	10.97	-	-	7.52	43.5	0.0370	0.00865	2.350	0.0844	4.13

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
5	5.1	4.6	-	4.00	6.6	4.205	0.5	0.95	0.604	0.16	0.06	0.04	0.014	0.90	1
9	11.4	4.2	-	3.80	9.3	5.224	0.8	0.93	0.760	0.15	0.23	0.09	0.012	0.90	1
11	1.2	1.6	-	4.00	7.0	3.541	0.6	0.55	0.849	0.08	-	-	-	-	1
15	17.0	16.6	-	4.00	3.9	2.745	bd1	0.18	0.401	0.03	0.03	0.02	0.006	-	1
27	8.4	6.5	-	4.00	9.5	6.419	bd1	1.71	1.442	0.35	0.17	0.14	0.045	-	1
30	8.1	7.8	-	4.30	3.9	1.904	bd1	0.28	1.214	0.06	0.06	0.12	0.078	-	1
TOTAL PRECIP	51.2	41.3													
NO. OBS.	6	6	-	6	6	6	-	6	6	6	5	5	5	-	
A. MEAN	8.5	6.9	-	3.99	6.7	4.006	-	0.77	0.878	0.14	0.11	0.08	0.031	-	
STD. DEV.	5.4	5.2	-	4.46	2.5	1.647	-	0.56	0.387	0.12	0.09	0.05	0.030	-	
MINIMUM	1.2	1.6	-	3.80	3.9	1.904	-	0.18	0.401	0.03	0.03	0.02	0.006	-	
MAXIMUM	17.0	16.6	-	4.30	9.5	6.419	-	1.71	1.442	0.35	0.23	0.14	0.078	-	
P.W. MEAN			-	3.98	6.4	3.931	-	0.70	0.811	0.13	0.11	0.07	0.026		

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

JUNE 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS			PARTICULATE		
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2	Br	V	Al	Mn	Ca
1	2.39	3.46	bd1	bd1	1.01	13.1	0.0078	0.00206	0.373	0.0131	0.67
2	11.71	3.03	bd1	bd1	2.41	11.8	0.0140	0.00389	0.299	0.0107	0.60
3	8.41	3.07	bd1	bd1	2.61	5.4	bd1	0.00309	0.213	0.0089	bd1
4	-	-	-	-	-	3.6	-	-	-	-	-
5	8.86	8.12	bd1	bd1	3.48	16.5	0.0155	0.00402	0.495	0.0220	0.74
6	2.50	2.50	bd1	bd1	1.30	1.4	bd1	0.00118	0.578	0.0126	1.32
7	2.25	1.96	bd1	bd1	0.95	3.1	bd1	0.00332	0.245	0.0049	0.72
8	7.06	4.56	0.42	bd1	2.67	21.2	bd1	0.00171	0.475	0.0155	0.37
9	3.64	4.55	0.43	bd1	1.69	3.3	0.0082	0.00182	0.286	0.0110	0.46
10	2.62	3.43	0.82	bd1	1.41	4.5	bd1	0.00148	0.290	0.0109	0.30
11	4.39	5.93	0.40	bd1	2.22	3.6	bd1	0.00263	0.264	0.0165	0.44
12	6.74	15.19	0.39	bd1	3.48	11.6	0.0294	0.00334	0.663	0.0378	1.73
13	10.00	14.30	0.82	bd1	4.38	11.1	0.0304	0.00439	0.262	0.0268	0.39
14	6.21	4.72	0.77	0.25	2.46	5.2	0.0103	0.00468	0.976	0.0130	bd1
15	11.39	8.86	0.66	1.08	4.78	9.8	0.0107	0.00735	2.296	0.0334	1.02
16	2.78	3.25	bd1	bd1	1.41	4.5	bd1	0.00167	0.540	0.0106	0.44
17	4.33	4.33	bd1	bd1	2.09	4.0	bd1	0.00355	0.190	0.0052	0.51
18	29.31	1.41	bd1	bd1	4.91	18.5	0.0125	0.00275	0.498	0.0198	0.90
19	17.00	6.43	bd1	bd1	5.80	15.3	0.0221	0.00298	0.881	0.0400	1.88
20	3.91	5.04	0.28	bd1	2.05	11.5	0.0221	0.00347	0.470	0.0275	1.20
21	14.79	7.69	bd1	bd1	6.02	9.8	0.0144	0.00304	0.368	0.0125	0.34
22	10.75	3.95	bd1	bd1	3.05	6.7	bd1	0.00488	0.398	0.0084	0.75
23	10.65	4.46	bd1	bd1	2.91	10.0	0.0185	0.00418	0.609	0.0253	0.54
24	2.40	1.52	bd1	bd1	1.01	3.2	bd1	0.00119	0.427	0.0105	0.51
25	0.77	bd1	bd1	bd1	bd1	1.4	bd1	0.00234	0.360	0.0073	1.37
26	1.08	1.07	bd1	bd1	0.50	2.3	0.0197	0.00243	0.217	0.0047	0.82
27	7.50	2.39	bd1	bd1	1.71	12.5	0.0207	0.00282	0.530	0.0127	1.25
28	11.85	2.01	bd1	bd1	2.36	17.9	0.0098	0.00184	0.442	0.0213	0.28
29	11.27	2.04	bd1	bd1	1.73	6.1	bd1	0.00306	0.519	0.0078	0.61
30	13.86	5.60	0.60	bd1	4.45	12.5	0.0214	0.00430	7.135	0.0317	1.19

bd1 - BELOW DETECTION LIMIT

NO. OBS.	29	29	-	-	29	30	29	29	29	29	29
A. MEAN	7.95	4.65	-	-	2.58	8.7	0.0099	0.00309	0.734	0.0166	0.74
S.D.	6.08	3.51	-	-	1.55	5.6	0.0100	0.00133	1.292	0.0100	0.47
MIN.	0.77	bd1	-	-	bd1	1.4	bd1	0.00118	0.190	0.0047	bd1
MAX.	29.31	15.19	-	-	6.02	21.2	0.0304	0.00735	7.135	0.0400	1.88

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	+VE/-VE	
3	25.0	30.0	-	4.00	4.8	2.258	bd1	0.29	0.467	0.04	0.04	0.02	0.007	-	1
8	13.4	13.7	-	4.30	3.3	2.789	bd1	0.42	0.926	0.09	0.02	0.03	0.010	-	1
10	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
12	18.3	16.9	-	4.00	5.4	2.745	bd1	0.41	0.766	0.09	0.17	0.03	0.011	-	1
20	11.1	8.8	-	3.60	14.1	8.544	bd1	1.03	2.073	0.19	0.10	0.11	0.011	-	1
21	45.0	43.6	-	4.10	3.0	2.036	bd1	0.15	0.582	0.02	0.03	0.03	0.007	-	1
22	2.0	1.6	-	4.20	4.3	2.036	bd1	-	1.225	-	-	-	-	-	1
24	4.1	4.2	-	4.10	4.0	3.586	bd1	0.39	0.656	0.06	0.06	0.05	-	-	1
30	3.1	3.3	-	4.00	10.4	7.171	1.2	-	1.610	-	-	-	-	-	1

TOTAL PRECIP 123.1 122.1

NO. OBS.	9	8	-	8	8	8	-	-	8	-	-	-	-	-	-
A. MEAN	13.7	15.3	-	3.99	6.2	3.896	-	-	1.038	-	-	-	-	-	-
STD. DEV.	14.3	14.7	-	4.20	4.0	2.524	-	-	0.561	-	-	-	-	-	-
MINIMUM	1.1	1.6	-	3.60	3.0	2.036	-	-	0.467	-	-	-	-	-	-
MAXIMUM	45.0	43.6	-	4.30	14.1	8.544	-	-	2.073	-	-	-	-	-	-
P.W. MEAN	-	-	-	4.00	5.0	3.045	-	-	0.799	-	-	-	-	-	-

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

JULY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	SO ₄ ⁼	NO ₃ ⁻	PARTICULATE			GAS			PARTICULATE		
			Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂	Br	V	Al	Mn	Ca
1	6.01	3.29	0.52	0.63	2.14	3.8	0.0196	0.00436	0.302	0.0103	0.35
2	3.32	1.96	bd1	bd1	0.93	7.6	0.0120	0.00279	0.232	0.0070	0.68
3	6.72	1.94	bd1	0.12	1.90	7.2	0.0184	0.00233	0.405	0.0105	0.81
4	15.27	2.36	bd1	bd1	3.50	15.1	0.0183	0.00351	0.280	0.0172	0.53
5	19.89	3.83	bd1	bd1	5.05	2.5	0.0167	0.00194	0.178	0.0078	0.37
6	26.29	9.84	0.52	0.12	7.87	12.1	0.0257	0.00568	0.598	0.0200	1.60
7	20.78	4.45	0.42	0.21	6.22	9.0	0.0164	0.00487	0.717	0.0208	1.02
8	5.24	3.18	0.58	1.07	1.81	10.3	0.0099	0.00341	0.864	0.0190	1.49
9	1.15	1.70	0.39	0.36	bd1	1.7	0.0103	0.00024	1.213	0.0235	2.11
10	2.85	2.55	0.45	0.63	1.29	1.4	0.0100	0.00296	0.590	0.0118	0.80
11	6.59	2.35	bd1	0.13	1.99	7.5	0.0102	0.00257	0.399	0.0166	0.59
12	9.54	3.64	0.37	0.17	3.18	3.6	0.0094	0.00278	0.527	0.0118	1.24
13	0.81	2.68	0.42	0.15	bd1	bd1	0.0087	0.00372	0.546	0.0190	1.81
14	1.25	1.29	0.34	bd1	0.68	8.5	0.0063	0.00125	0.242	0.0059	0.79
15	2.44	2.55	0.37	bd1	0.87	6.9	0.0138	0.00303	0.373	0.0141	2.31
16	9.94	3.31	0.37	bd1	2.52	9.2	0.0127	0.00368	0.283	0.0123	1.06
17	16.57	5.57	0.41	bd1	4.04	6.9	0.0247	0.00751	0.652	0.0326	1.05
18	29.03	bd1	bd1	bd1	3.52	31.5	0.0079	0.00226	0.573	bd1	bd1
19	1.63	bd1	bd1	bd1	bd1	1.3	bd1	0.00028	0.031	bd1	bd1
20	13.70	4.46	0.38	bd1	3.94	5.1	0.0082	0.00133	0.125	0.0078	0.30
21	3.92	1.45	0.31	bd1	1.10	8.4	0.0106	0.00175	0.181	0.0065	0.79
22	0.77	0.75	0.32	bd1	bd1	2.8	0.0094	0.00070	0.153	0.0126	0.54
23	2.75	1.95	0.31	bd1	0.88	5.6	0.0156	0.00231	0.368	0.0210	1.00
24	7.11	2.55	0.35	bd1	1.49	8.6	0.0174	0.00414	0.450	0.0096	0.95
25	18.50	2.04	bd1	bd1	2.96	37.4	0.0189	0.00483	0.512	0.0267	0.43
26	13.41	0.94	0.35	bd1	2.61	7.9	0.0079	0.00180	0.157	0.0075	0.44
27	1.58	3.29	bd1	bd1	0.87	2.9	0.0054	0.00065	0.186	0.0045	0.71
28	5.22	2.10	bd1	bd1	1.60	21.2	0.0073	0.00108	0.115	0.0062	bd1
29	0.81	0.99	bd1	bd1	bd1	4.8	0.0107	0.00029	0.080	bd1	0.28
30	2.13	2.09	bd1	bd1	1.26	3.2	0.0161	0.00329	0.134	0.0082	0.73
31	6.61	5.11	bd1	0.13	2.31	7.3	0.0302	0.00458	0.406	0.0160	1.44

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	31	-	31	31	31	31	31	31	31
A. MEAN	8.45	2.72	0.23	-	2.15	8.4	0.0132	0.00277	0.383	0.0125	0.85
S.D.	7.95	1.89	0.21	-	1.88	8.2	0.0065	0.00172	0.259	0.0079	0.58
MIN.	0.77	bd1	bd1	-	bd1	bd1	bd1	0.00024	0.031	bd1	bd1
MAX.	29.03	9.84	0.58	-	7.87	37.4	0.0302	0.00751	1.213	0.0326	2.31

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
9	8.0	5.5	-	3.90	8.2	5.312	0.7	1.31	1.011	0.18	0.17	0.16	0.055	0.99	1
19	22.0	21.8	-	4.10	4.5	1.904	bd1	0.25	0.567	0.05	0.04	0.06	0.037	-	1
20	2.4	1.6	-	3.90	7.0	4.515	bd1	-	1.003	-	-	-	-	-	1
26	12.4	11.4	-	4.00	5.8	2.523	bd1	0.41	0.715	0.05	0.08	0.10	0.043	-	1
28	27.1	26.1	-	3.80	6.3	3.851	bd1	0.15	0.644	0.02	0.04	0.03	0.007	-	1
TOTAL PRECIP	71.9	66.4													
NO. OBS.	5	5	-	5	5	5	-	4	5	4	4	4	4	-	
A. MEAN	14.4	13.3	-	3.93	6.4	3.621	-	0.53	0.788	0.08	0.08	0.09	0.036	-	
STD. DEV.	10.1	10.5	-	4.52	1.4	1.402	-	0.53	0.207	0.07	0.06	0.06	0.020	-	
MINIMUM	2.4	1.6	-	3.80	4.5	1.904	-	0.15	0.567	0.02	0.04	0.03	0.007	-	
MAXIMUM	27.1	26.1	-	4.10	8.2	5.312	-	1.31	1.011	0.18	0.17	0.16	0.055	-	
P.W. MEAN			-	3.92	5.9	3.211	-	0.36	0.686	0.05	0.06	0.07	0.028		

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

AUGUST 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS			PARTICULATE			
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂	Br	V	Al	Mn	Ca	
1	24.25	1.25	bd1	0.24	3.05	34.1	0.0234	0.00485	0.821	0.0173	0.64	
2	25.58	3.15	bd1	bd1	4.11	20.2	0.0201	0.00630	0.599	0.0213	0.67	
3	14.64	2.64	bd1	bd1	2.92	10.5	0.0063	0.00119	0.140	0.0089	bd1	
4	6.26	1.79	1.25	bd1	-	6.6	0.0044	bd1	0.020	bd1	0.33	
5	1.51	0.89	bd1	bd1	bd1	2.1	0.0106	0.00110	0.175	bd1	0.50	
6	3.35	2.03	bd1	bd1	1.26	11.4	0.0124	0.00135	0.155	bd1	0.41	
7	7.00	1.90	bd1	bd1	2.07	15.9	0.0160	0.00156	0.140	0.0059	bd1	
8	7.02	3.07	bd1	bd1	2.00	6.8	0.0054	0.00092	0.116	0.0067	0.40	
9	0.82	bd1	bd1	bd1	bd1	7.6	bd1	bd1	bd1	bd1	bd1	
10	50.66	bd1	0.33	38.80	3.96	9.4	0.0103	0.00167	0.227	0.0152	0.52	
11	0.93	0.85	bd1	bd1	bd1	5.6	bd1	bd1	0.023	bd1	bd1	
12	5.57	4.56	0.34	bd1	1.83	7.9	0.0107	0.00413	0.364	0.0151	0.62	
13	0.55	0.99	bd1	bd1	bd1	6.6	bd1	bd1	0.046	bd1	0.36	
14	13.25	5.41	0.34	bd1	3.48	5.7	0.0175	0.00279	0.317	0.0124	0.53	
15	13.65	1.05	bd1	bd1	2.42	1.4	0.0084	0.00080	0.079	bd1	bd1	
16	2.52	1.19	bd1	bd1	0.97	2.8	0.0095	0.00043	0.098	bd1	0.34	
17	1.35	3.07	0.31	bd1	0.87	1.7	0.0133	0.00064	0.257	0.0072	0.56	
18	5.60	2.94	bd1	0.18	1.86	29.9	0.0184	0.00166	0.265	0.0079	0.71	
19	4.86	4.58	0.43	bd1	2.21	19.6	0.0280	0.00436	0.428	0.0160	1.29	
20	4.05	6.19	0.34	bd1	2.28	7.7	0.0299	0.00702	0.494	0.0163	1.46	
21	5.57	4.02	bd1	bd1	1.63	14.8	0.0293	0.00810	0.876	0.0297	3.55	
22	6.74	3.60	bd1	bd1	1.77	12.5	0.0491	0.00805	0.863	0.0192	1.54	
23	18.70	3.58	bd1	bd1	3.48	13.4	0.0207	0.00623	0.622	0.0165	0.81	
24	3.31	3.19	bd1	bd1	1.82	1.6	0.0177	0.00068	0.309	0.0113	0.59	
25	8.10	2.70	bd1	bd1	2.41	6.3	0.0151	0.00255	0.207	0.0116	0.99	
26	7.57	2.57	bd1	bd1	2.39	3.1	0.0187	0.00309	0.484	0.0103	0.65	
27	11.51	10.40	bd1	0.12	4.57	9.8	0.0444	0.00640	0.678	0.0301	1.76	
28	14.94	1.93	bd1	bd1	3.75	8.1	0.0143	0.00190	0.262	0.0058	bd1	
29	22.66	3.45	bd1	0.14	5.32	26.3	0.0273	0.00575	0.865	0.0231	0.43	
30	12.57	3.28	bd1	bd1	3.76	10.4	0.0158	0.00307	0.282	0.0137	0.39	
31	19.46	4.31	bd1	0.15	4.78	43.4	-	-	-	-	-	

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	30	31	30	30	30	30	30
A. MEAN	10.47	2.92	-	-	2.37	11.7	0.0166	0.00289	0.340	0.0107	0.67
S.D.	10.35	2.05	-	-	1.46	10.0	0.0117	0.00258	0.273	0.0088	0.71
MIN.	0.55	bd1	-	-	bd1	1.4	bd1	bd1	bd1	bd1	bd1
MAX.	50.66	10.40	-	-	5.32	43.4	0.0491	0.00810	0.876	0.0301	3.55

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

														ION BAL.		PRECIP
AMOUNT		pH												RATIO		
DAY	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE	
3	10.4	10.1	-	4.10	4.7	1.992	bd1	0.18	0.674	0.03	0.03	0.04	0.023	-	1	
8	5.4	5.2	-	3.90	5.2	4.914	bd1	0.31	0.634	0.05	0.03	0.03	0.002	-	1	
10	14.0	13.0	-	4.10	4.2	2.036	bd1	0.16	0.421	0.03	0.02	0.03	0.006	-	1	
11	10.3	9.8	-	4.20	2.9	3.010	bd1	0.21	0.473	0.04	0.06	0.07	0.001	-	1	
13	1.3	1.6	-	5.00	5.7	-	0.6	bd1	-	bd1	0.01	bd1	0.000	-	1	
15	10.0	7.8	-	3.70	8.6	5.622	bd1	0.46	0.783	0.08	0.02	0.07	0.014	-	1	
30	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
TOTAL PRECIP 51.5 47.5																
NO. OBS.	7	6	-	6	6	5	-	6	5	6	6	6	6	-		
A. MEAN	7.4	7.9	-	4.03	5.2	3.515	-	0.22	0.597	0.04	0.03	0.04	0.008	-		
STD. DEV.	5.2	4.0	-	4.19	1.9	1.670	-	0.15	0.149	0.03	0.02	0.03	0.009	-		
MINIMUM	0.1	1.6	-	3.70	2.9	1.992	-	bd1	0.421	bd1	0.01	bd1	bd1	-		
MAXIMUM	14.0	13.0	-	5.00	8.6	5.622	-	0.46	0.783	0.08	0.06	0.07	0.023	-		
P.W. MEAN			-	3.99	5.0	3.253	-	0.24	0.579	0.04	0.03	0.05	0.009			

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

SEPTEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS			PARTICULATE		
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2	Br	V	Al	Mn	Ca
1	9.69	4.12	bd1	bd1	3.25	18.6	0.0212	0.00431	0.709	0.0367	0.46
2	7.22	2.14	bd1	bd1	2.29	28.6	0.0103	0.00181	0.155	0.0074	0.39
3	1.22	bd1	0.59	0.40	bd1	28.8	0.0147	0.00214	0.293	0.0071	bd1
4	5.49	2.88	bd1	bd1	2.15	16.6	0.0028	bd1	0.014	bd1	bd1
5	3.51	1.94	bd1	bd1	1.43	10.1	0.0210	0.00096	0.058	bd1	bd1
6	1.95	0.76	0.68	0.46	0.70	6.2	0.0199	0.00143	0.059	bd1	0.51
7	5.41	1.75	bd1	bd1	0.92	11.7	bd1	0.00024	0.072	bd1	bd1
8	1.42	0.81	bd1	bd1	bd1	7.7	0.0078	0.00052	0.088	bd1	0.35
9	1.27	1.97	bd1	bd1	bd1	8.1	0.0084	0.00114	0.219	0.0088	0.77
10	5.96	3.23	bd1	bd1	2.27	6.7	0.0134	0.00176	0.304	0.0160	0.98
11	8.10	4.95	bd1	bd1	3.43	7.1	0.0169	0.00314	0.486	0.0188	0.93
12	4.14	2.16	bd1	bd1	1.76	1.3	0.0065	0.00237	0.266	0.0084	0.82
13	22.84	6.70	bd1	bd1	6.50	17.0	0.0178	0.00505	0.607	0.0237	0.93
14	10.32	4.90	bd1	bd1	3.02	10.3	0.0130	0.00141	0.376	0.0078	1.00
15	2.28	1.55	bd1	bd1	0.81	10.8	0.0161	0.00150	0.414	0.0236	1.06
16	2.99	1.22	0.31	bd1	0.78	21.1	0.0146	0.00199	0.241	0.0135	1.13
17	2.03	bd1	0.56	bd1	bd1	39.1	0.0154	0.00150	0.119	0.0046	bd1
18	4.13	1.67	bd1	bd1	1.18	5.3	0.0180	0.00191	0.102	0.0081	0.28
19	1.18	0.96	bd1	bd1	bd1	4.2	0.0050	0.00052	0.174	0.0060	0.39
20	0.50	bd1	bd1	bd1	bd1	1.4	0.0045	0.00159	0.043	bd1	bd1
21	1.30	1.72	bd1	bd1	bd1	9.5	0.0144	0.00133	0.043	0.0074	bd1
22	1.38	0.79	bd1	bd1	bd1	3.1	0.0100	0.00058	0.054	bd1	0.33
23	1.38	bd1	bd1	bd1	bd1	2.5	0.0052	0.00172	0.054	bd1	0.26
24	0.96	0.86	bd1	bd1	bd1	3.9	0.0092	0.00163	0.277	0.0061	1.14
25	4.10	6.01	bd1	bd1	1.84	20.8	0.0246	0.00335	0.491	0.0399	0.56
26	13.98	3.07	bd1	bd1	3.99	28.7	0.0199	0.00398	0.957	0.0276	0.55
27	2.95	1.35	bd1	bd1	1.26	4.8	0.0031	0.00154	0.481	0.0098	0.40
28	0.78	0.74	bd1	bd1	bd1	bd1	0.0064	0.00067	0.174	0.0050	0.46
29	0.41	bd1	bd1	bd1	bd1	1.3	0.0032	0.00028	0.057	bd1	bd1
30	1.67	1.70	bd1	bd1	0.80	17.0	0.0130	0.00219	0.112	0.0106	0.34

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	30	30	30	30	30	30	30
A. MEAN	4.35	2.00	-	-	1.28	11.7	0.0119	0.00175	0.250	0.0099	0.47
S.D.	4.82	1.79	-	-	1.56	9.9	0.0065	0.00121	0.229	0.0109	0.39
MIN.	0.41	bd1	-	-	bd1	bd1	bd1	bd1	0.014	bd1	bd1
MAX.	22.84	6.70	-	-	6.50	39.1	0.0246	0.00505	0.957	0.0399	1.14

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	+VE/-VE	
1	9.0	8.1	-	4.30	14.4	8.145	0.3	4.07	1.386	0.81	0.20	0.26	0.053	0.94	1
2	5.3	5.5	-	4.40	6.4	4.914	0.7	0.92	0.865	0.20	0.44	0.14	0.057	0.74	1
3	14.3	14.3	-	4.00	5.1	3.541	0.3	0.25	0.401	0.05	0.13	0.02	0.005	0.85	1
4	3.4	2.9	-	3.70	7.7	8.677	0.5	0.44	1.209	0.06	0.07	0.09	0.038	0.95	1
7	18.0	16.3	-	4.30	3.0	1.372	0.2	0.11	0.355	0.02	0.14	0.01	0.006	0.92	1
13	3.0	2.6	-	4.00	10.6	5.932	0.5	1.30	1.728	0.20	0.26	0.07	0.035	0.88	1
16	78.2	87.3	-	4.20	3.4	1.594	0.3	0.12	0.361	0.02	0.05	0.04	0.008	0.90	1
19	7.2	6.8	-	4.30	4.4	6.020	0.4	0.89	1.222	0.15	0.06	0.25	0.031	0.92	1
21	21.0	21.2	-	3.90	6.1	5.666	0.4	0.54	1.001	0.07	0.05	0.14	0.016	0.95	1
30	35.1	36.2	-	4.30	2.3	1.062	0.2	0.18	0.104	0.03	0.07	bd1	0.008	-	1

TOTAL PRECIP 194.5 201.2

NO. OBS.	10	10	-	10	10	10	10	10	10	10	10	10	10	9
A. MEAN	19.5	20.1	-	4.08	6.3	4.692	0.4	0.88	0.863	0.16	0.15	0.10	0.026	0.89
STD. DEV.	22.9	25.7	-	4.30	3.7	2.733	0.2	1.19	0.536	0.24	0.12	0.09	0.020	0.07
MINIMUM	3.0	2.6	-	3.70	2.3	1.062	0.2	0.11	0.104	0.02	0.05	bd1	0.005	0.74
MAXIMUM	78.2	87.3	-	4.40	14.4	8.677	0.7	4.07	1.728	0.81	0.44	0.26	0.057	0.95
P.W. MEAN			-	4.15	4.4	2.808	0.3	0.44	0.515	0.08	0.09	0.06	0.014	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

OCTOBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS			PARTICULATE		
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2	Br	V	Al	Mn	Ca
1	3.08	1.25	bd1	bd1	0.93	7.6	0.0029	0.00115	0.100	bd1	bd1
2	0.66	bd1	bd1	bd1	bd1	4.9	0.0044	0.00088	0.027	bd1	bd1
3	0.85	0.80	bd1	bd1	bd1	10.0	0.0057	0.00086	0.044	bd1	bd1
4	3.40	3.76	bd1	bd1	1.31	37.1	0.0195	0.00301	0.444	0.0157	0.53
5	9.70	7.90	bd1	bd1	3.77	15.5	0.0166	0.00310	0.361	0.0140	bd1
6	2.03	0.88	bd1	0.13	1.32	5.5	0.0038	0.00091	0.083	bd1	bd1
7	0.63	bd1	bd1	bd1	bd1	2.9	bd1	0.00046	0.056	bd1	bd1
8	0.66	bd1	bd1	bd1	bd1	1.7	0.0045	0.00084	0.055	0.0077	0.75
9	0.99	1.57	bd1	bd1	bd1	18.9	0.0136	0.00119	0.111	0.0063	bd1
10	1.84	2.50	bd1	bd1	1.05	16.5	0.0126	0.00252	0.108	bd1	0.39
11	1.75	2.33	0.41	bd1	1.28	30.5	0.0148	0.00316	0.171	0.0055	0.47
12	2.40	3.75	0.45	0.40	2.11	16.7	0.0250	0.00629	0.231	0.0145	0.64
13	6.03	7.41	0.32	0.23	2.98	21.5	0.0297	0.00900	0.432	0.0279	1.17
14	4.29	4.91	bd1	0.13	2.67	25.8	0.0250	0.00650	0.396	0.0116	0.53
15	4.78	3.31	bd1	0.12	2.59	16.7	0.0182	0.00498	0.378	0.0215	0.73
16	1.78	0.99	bd1	bd1	1.33	5.8	0.0159	0.00122	0.141	0.0054	0.60
17	3.77	4.11	bd1	bd1	1.77	29.8	0.0221	0.00224	0.231	0.0091	0.41
18	1.26	bd1	bd1	bd1	0.91	3.0	0.0030	0.00058	0.133	bd1	bd1
19	0.60	1.42	bd1	bd1	bd1	6.7	0.0037	0.00053	0.081	bd1	bd1
20	3.09	3.12	bd1	bd1	1.01	22.2	0.0086	0.00138	0.281	0.0103	0.47
21	1.18	0.88	bd1	bd1	bd1	39.2	0.0114	0.00078	0.058	bd1	bd1
22	2.48	1.06	0.31	bd1	0.80	39.2	0.0251	0.00196	0.181	bd1	bd1
23	1.65	2.02	bd1	bd1	0.85	4.1	0.0075	0.00131	0.104	bd1	0.25
24	1.67	1.63	bd1	bd1	0.66	17.1	0.0069	0.00098	0.091	bd1	bd1
25	3.68	2.49	bd1	bd1	1.14	31.2	0.0098	0.00169	0.169	0.0061	0.33
26	3.46	4.19	0.65	bd1	2.46	7.4	0.0302	0.00580	0.144	0.0168	0.37
27	3.30	0.96	bd1	bd1	1.57	9.3	0.0234	0.00178	0.029	0.0074	bd1
28	6.09	3.49	0.47	0.17	1.77	38.0	0.0305	0.00308	0.382	0.0137	0.74
29	3.38	2.50	0.57	0.13	1.55	69.2	0.0238	0.00483	0.335	0.0127	0.72
30	8.79	7.51	bd1	0.24	2.02	17.0	0.0291	0.00664	0.232	0.0130	0.53
31	4.99	6.63	0.30	0.40	2.02	15.1	0.0270	0.00883	0.204	0.0109	0.40

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	31	31	31	31	31	31	31
A. MEAN	3.04	2.69	-	-	1.29	18.9	0.0153	0.00285	0.187	0.0074	0.32
S.D.	2.27	2.27	-	-	0.99	15.0	0.0097	0.00250	0.129	0.0075	0.32
MIN.	0.60	bd1	-	-	bd1	1.7	bd1	0.00046	0.027	bd1	bd1
MAX.	9.70	7.90	-	-	3.77	69.2	0.0305	0.00900	0.444	0.0279	1.17

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH												ION BAL. RATIO	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE		
1	12.3	12.7	-	4.10	5.6	2.523	0.3	0.43	0.948	0.04	0.07	0.04	0.013	0.98	1	
5	5.0	5.2	-	4.00	5.9	5.091	0.2	0.57	0.874	0.09	0.11	0.05	0.032	0.90	1	
6	2.0	2.0	-	4.20	5.5	3.719	0.6	1.07	0.724	0.16	0.31	0.06	-	0.97	1	
21	9.4	8.5	-	3.80	7.2	9.341	1.6	1.40	1.339	0.16	0.11	0.16	0.030	0.94	1	
25	6.2	4.6	-	5.40	6.8	4.958	2.1	2.50	1.091	0.55	1.04	0.80	0.566	1.06	1	
26	3.2	1.6	-	6.30	16.2	-	7.6	7.64	-	1.68	3.61	0.79	-	-	1	
TOTAL PRECIP	38.1	34.6														
NO. OBS.	6	6	-	6	6	5	6	6	5	6	6	6	-	5		
A. MEAN	6.4	5.8	-	4.17	7.9	5.126	2.1	2.27	0.995	0.45	0.88	0.32	-	0.97		
STD. DEV.	3.9	4.2	-	4.22	4.1	2.576	2.8	2.73	0.233	0.63	1.39	0.37	-	0.06		
MINIMUM	2.0	1.6	-	3.80	5.5	2.523	0.2	0.43	0.724	0.04	0.07	0.04	-	0.90		
MAXIMUM	12.3	12.7	-	6.30	16.2	9.341	7.6	7.64	1.339	1.68	3.61	0.80	-	1.06		
P.W. MEAN			-	4.09	7.1	5.228	1.5	1.66	1.055	0.30	0.55	0.26	-			

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

NOVEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS			PARTICULATE		
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2	Br	V	Al	Mn	Ca
1	7.51	8.28	0.35	0.42	3.07	24.1	0.0248	0.00856	0.345	0.0324	0.35
2	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-
10	2.37	4.13	bd1	bd1	1.16	22.4	0.0087	0.00141	0.205	0.0116	0.37
11	0.40	0.89	bd1	bd1	bd1	3.3	0.0015	0.00093	0.049	bd1	bd1
12	3.42	3.62	0.48	bd1	1.05	62.3	0.0145	0.00270	0.314	0.0141	0.76
13	2.87	4.64	0.52	bd1	1.35	32.6	0.0380	0.00837	0.311	0.0363	1.09
14	4.31	10.66	0.36	bd1	2.68	29.6	0.0466	0.00684	0.324	0.0352	0.75
15	0.43	3.27	bd1	bd1	0.97	11.8	0.0246	0.00297	0.154	0.0155	0.59
16	bd1	bd1	bd1	bd1	bd1	2.4	0.0025	0.00038	0.026	bd1	bd1
17	bd1	bd1	bd1	bd1	bd1	6.7	bd1	bd1	bd1	bd1	bd1
18	bd1	bd1	bd1	bd1	bd1	0.9	bd1	0.00025	0.013	bd1	bd1
19	3.03	1.55	0.30	bd1	1.24	27.0	0.0168	0.00261	0.141	0.0090	bd1
20	0.68	bd1	bd1	bd1	bd1	6.9	bd1	0.00064	0.045	bd1	bd1
21	0.83	bd1	bd1	bd1	bd1	1.1	bd1	0.00031	0.040	bd1	bd1
22	1.31	bd1	bd1	bd1	bd1	2.8	0.0028	0.00124	0.077	bd1	bd1
23	4.40	3.47	bd1	bd1	1.43	12.9	0.0116	0.00192	0.158	0.0073	bd1
24	4.05	4.00	0.29	0.11	1.38	26.9	0.0218	0.00208	0.187	0.0141	0.66
25	1.56	2.38	bd1	bd1	0.71	17.5	0.0102	0.00263	0.144	0.0086	0.45
26	3.63	1.78	bd1	bd1	1.10	27.0	0.0120	0.00116	0.150	bd1	bd1
27	3.33	1.21	bd1	bd1	0.95	9.2	0.0038	0.00099	0.098	bd1	bd1
28	1.37	bd1	bd1	bd1	bd1	3.0	0.0026	0.00085	0.084	bd1	bd1
29	0.92	1.26	bd1	bd1	0.62	2.8	0.0055	0.00104	0.051	bd1	bd1
30	1.46	1.72	bd1	bd1	bd1	10.9	0.0062	0.00150	0.175	bd1	0.31

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-	-	-	-	-	-
S.D.	-	-	-	-	-	-	-	-	-	-	-
MIN.	-	-	-	-	-	-	-	-	-	-	-
MAX.	-	-	-	-	-	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH												ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P			
6	11.3	5.9	-	4.70	10.5	9.429	2.5	4.01	1.520	0.74	1.18	0.36	0.110	0.96	1	
19	11.1	9.8	-	4.30	5.7	5.622	0.9	1.89	0.792	0.34	0.41	0.06	0.011	1.00	1	
30	8.1	7.8	-	4.30	4.1	2.050	bd1	0.72	0.470	0.11	0.27	0.06	0.011	-	1	
TOTAL PRECIP	30.5	23.5														
NO. OBS.	3	3	-	3	3	3	-	3	3	3	3	3	3	-		
A. MEAN	10.2	7.8	-	4.40	6.8	5.700	-	2.21	0.927	0.40	0.62	0.16	0.044	-		
STD. DEV.	1.8	2.0	-	4.76	3.3	3.690	-	1.67	0.538	0.32	0.49	0.17	0.057	-		
MINIMUM	8.1	5.9	-	4.30	4.1	2.050	-	0.72	0.470	0.11	0.27	0.06	0.011	-		
MAXIMUM	11.3	9.8	-	4.70	10.5	9.429	-	4.01	1.520	0.74	1.18	0.36	0.110	-		
P.W. MEAN			-	4.41	7.1	6.084	-	2.36	0.976	0.43	0.66	0.17	0.048			

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

DECEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	SO ₄ ⁼	NO ₃ ⁻	PARTICULATE			GAS			PARTICULATE		
			Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂	Br	V	Al	Mn	Ca
1	2.41	1.12	bd1	bd1	bd1	11.4	0.0057	0.00074	0.060	bd1	bd1
2	2.46	1.72	bd1	bd1	0.98	11.3	0.0050	0.00043	0.053	bd1	bd1
3	2.20	4.36	bd1	bd1	1.20	15.1	0.0126	0.00142	0.167	0.0090	bd1
4	2.38	4.23	bd1	bd1	1.40	17.3	0.0185	0.00228	0.127	0.0181	0.46
5	2.52	1.38	bd1	bd1	0.89	8.7	0.0069	0.00038	0.013	bd1	bd1
6	2.07	2.72	bd1	bd1	1.09	19.4	0.0095	0.00085	0.078	bd1	bd1
7	3.55	5.37	bd1	bd1	1.92	26.3	0.0208	0.00155	0.239	0.0120	0.55
8	0.82	bd1	bd1	bd1	bd1	10.4	0.0015	bd1	0.031	bd1	bd1
9	0.68	bd1	0.28	0.21	bd1	3.0	bd1	bd1	0.102	bd1	0.88
10	0.92	bd1	bd1	bd1	bd1	6.5	0.0036	0.00046	0.309	0.0097	0.89
11	1.99	bd1	bd1	0.14	bd1	12.1	0.0068	bd1	0.116	0.0097	1.29
12	2.93	0.70	0.39	0.27	0.64	17.4	0.0068	0.00193	0.083	bd1	0.76
13	3.19	3.87	bd1	bd1	1.69	18.9	0.0141	0.00118	0.163	0.0066	bd1
14	6.59	6.32	0.48	0.18	3.04	31.3	0.0230	0.00247	0.126	0.0080	0.32
15	4.02	4.14	bd1	0.15	2.24	7.5	0.0180	0.00116	0.074	bd1	bd1
16	1.36	1.30	bd1	bd1	0.64	13.4	0.0037	0.00081	0.074	bd1	bd1
17	1.63	1.91	bd1	bd1	0.73	22.1	0.0081	0.00110	0.110	0.0084	0.31
18	0.80	bd1	bd1	bd1	bd1	13.0	0.0023	0.00090	0.036	bd1	bd1
19	0.90	bd1	bd1	bd1	bd1	10.6	0.0033	0.00043	0.064	bd1	0.25
20	2.21	2.71	bd1	bd1	0.91	28.0	0.0094	0.00091	0.116	0.0043	bd1
21	2.08	2.19	bd1	bd1	bd1	40.8	0.0081	0.00092	0.214	0.0077	bd1
22	1.49	1.40	bd1	bd1	bd1	18.1	0.0061	0.00038	0.023	bd1	bd1
23	3.35	3.78	bd1	bd1	1.19	15.7	0.0180	0.00116	0.115	0.0052	bd1
24	2.94	4.75	bd1	bd1	1.04	15.6	0.0062	0.00034	0.077	bd1	bd1
25	3.37	7.14	bd1	bd1	1.64	32.6	0.0161	0.00203	0.143	bd1	0.31
26	3.88	7.72	bd1	bd1	1.67	39.6	0.0232	0.00263	0.345	0.0047	0.33
27	3.77	5.72	bd1	bd1	1.66	19.0	0.0129	0.00139	0.103	bd1	0.26
28	4.92	7.95	bd1	bd1	2.34	14.4	0.0093	0.00220	0.061	0.0041	bd1
29	2.83	2.60	bd1	bd1	0.87	12.2	0.0093	0.00064	0.038	bd1	bd1
30	2.54	2.16	bd1	bd1	0.67	33.6	0.0084	0.00075	0.130	0.0081	bd1
31	2.55	1.53	bd1	bd1	0.80	48.5	0.0114	0.00104	0.165	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	31	31	31	31	31	-	-
A. MEAN	2.56	2.86	-	-	0.94	19.2	0.0100	0.00105	0.115	-	-
S.D.	1.29	2.41	-	-	0.81	11.0	0.0063	0.00073	0.078	-	-
MIN.	0.68	bd1	-	-	bd1	3.0	bd1	bd1	0.013	-	-
MAX.	6.59	7.95	-	-	3.04	48.5	0.0232	0.00263	0.345	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
2	10.3	7.2	-	3.90	5.6	7.039	0.7	0.56	1.138	0.07	0.12	0.04	0.017	0.92	1
7	3.1	2.9	-	4.10	4.5	8.942	0.9	1.07	1.417	0.16	0.52	0.06	-	0.94	1
21	7.8	2.6	-	5.60	1.9	4.117	0.5	0.56	0.384	0.10	2.28	0.05	0.014	1.31	2
22	17.2	14.7	-	4.20	1.8	1.673	bd1	0.26	0.113	0.05	0.60	0.01	0.007	-	3
27	7.6	-	-	-	-	-	-	-	-	-	-	-	-	-	2
28	6.2	4.6	-	4.40	0.5	2.891	0.9	0.35	0.088	0.05	1.17	bd1	0.011	-	2
31	4.2	2.0	-	3.90	3.1	-	1.9	0.68	-	0.10	bd1	0.02	0.030	-	3
TOTAL PRECIP	56.4	34.0													
NO. OBS.	7	6	-	6	6	5	6	6	5	6	6	6	5	-	
A. MEAN	8.1	5.7	-	4.14	2.9	4.932	0.8	0.58	0.628	0.09	0.78	0.03	0.016	-	
STD. DEV.	4.7	4.8	-	4.31	1.9	2.999	0.6	0.29	0.612	0.04	0.84	0.02	0.009	-	
MINIMUM	3.1	2.0	-	3.90	0.5	1.673	bd1	0.26	0.088	0.05	bd1	bd1	0.007	-	
MAXIMUM	17.2	14.7	-	5.60	5.6	8.942	1.9	1.07	1.417	0.16	2.28	0.06	0.030	-	
P.W. MEAN			-	4.15	2.7	4.014	0.6	0.47	0.484	0.07	0.78	0.03	0.013	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
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- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

APPENDIX 5

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS
IN AIR AND PRECIPITATION AT MONTMORENCY FOREST

MONTMORENCY FOREST

DECEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	bd1	bd1	bd1	bd1	bd1	.7
5	bd1	bd1	bd1	.07	bd1	bd1
6	bd1	bd1	bd1	bd1	bd1	1.0
7	.64	bd1	bd1	bd1	bd1	.5
8	1.07	bd1	bd1	.10	bd1	10.6
9	-	-	-	-	-	-
10	2.41	.62	bd1	.31	.82	8.2
11	.80	.20	.75	.47	bd1	2.7
12	1.06	.37	bd1	.17	.59	4.2
13	1.26	bd1	bd1	.07	bd1	7.0
14	.84	bd1	.60	.26	.54	6.3
15	.45	bd1	1.40	.59	bd1	1.8
16	-	-	-	-	-	-
17	4.88	1.78	bd1	.36	1.26	24.0
18	.55	bd1	.55	.25	bd1	12.7
19	1.44	.36	1.05	.76	bd1	14.0
20	1.73	.33	.42	.29	bd1	14.5
21	1.95	.58	bd1	.08	.56	12.0
22	.72	.36	bd1	bd1	bd1	3.6
23	4.52	5.87	.38	.33	1.70	34.2
24	4.47	1.85	.94	.71	1.29	18.4
25	2.40	1.27	.21	.19	.76	12.5
26	3.93	2.14	bd1	.12	.88	15.6
27	.36	.47	bd1	bd1	bd1	2.4
28	4.20	2.38	.21	.13	.86	50.0
29	4.96	1.70	.23	.10	.86	11.0
30	1.23	.48	1.50	1.13	bd1	1.7
31	.71	.19	bd1	.08	bd1	1.8

bd1 - BELOW DETECTION LIMIT

NO. OBS.	26	26	26	26	26	26
A. MEAN	1.79	.81	.32	.25	.39	10.4
S.D.	1.65	1.27	.46	.28	.52	11.5
MIN.	bd1	bd1	bd1	bd1	bd1	bd1
MAX.	4.96	5.87	1.50	1.13	1.70	50.0

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

														ION BAL. RATIO		PRECIP
DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE	
	STD (mm)	COLL (mm)	FIELD	LAB												
8	16.2	14.7	-	-	-	-	-	-	-	-	-	-	-	-	3	
10	2.6	1.0	-	-	-	-	-	-	-	-	-	-	-	-	2	
12	25.0	19.5	-	-	-	-	-	-	-	-	-	-	-	-	2	
13	.4	.3	-	-	-	-	-	-	-	-	-	-	-	-	2	
14	1.4	.5	-	-	-	-	-	-	-	-	-	-	-	-	2	
15	1.2	.7	-	-	-	-	-	-	-	-	-	-	-	-	2	
16	6.3	4.2	-	-	-	-	-	-	-	-	-	-	-	-	2	
17	3.6	2.9	-	-	-	-	-	-	-	-	-	-	-	-	2	
18	3.4	1.3	-	-	-	-	-	-	-	-	-	-	-	-	2	
19	.6	.2	-	-	-	-	-	-	-	-	-	-	-	-	2	
20	.2	T	-	-	-	-	-	-	-	-	-	-	-	-	2	
22	2.6	2.0	-	4.60	.4	2.169	.1	.46	bd1	.05	.03	bd1	.019	-	2	
23	2.6	1.6	-	3.90	1.5	5.888	.3	.48	bd1	.08	.10	.01	-	-	2	
26	2.6	1.6	-	4.50	.4	1.594	.1	.26	bd1	.07	bd1	bd1	-	-	2	
28	5.6	1.6	-	5.00	2.0	.177	.2	.02	.031	bd1	.02	.01	.008	-	2	
TOTAL PRECIP		74.3	52.1													
NO. OBS.		15	15	-	-	-	-	-	-	-	-	-	-	-	-	
A. MEAN		5.0	3.5	-	-	-	-	-	-	-	-	-	-	-	-	
STD. DEV.		6.8	5.7	-	-	-	-	-	-	-	-	-	-	-	-	
MINIMUM		.2	T	-	-	-	-	-	-	-	-	-	-	-	-	
MAXIMUM		25.0	19.5	-	-	-	-	-	-	-	-	-	-	-	-	
P.W. MEAN				-	-	-	-	-	-	-	-	-	-	-	-	

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

NOTE: DAY ()-NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1 IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MONTMORENCY FOREST

JANUARY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	SO ⁼	PARTICULATE				GAS SO ₂
		NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	bd1	bd1	bd1	bd1	bd1	2.1
2	1.65	0.88	0.49	0.28	0.56	7.8
3	1.60	bd1	0.58	0.59	bd1	4.6
4	1.06	bd1	0.65	0.49	bd1	1.2
5	0.79	bd1	bd1	0.18	bd1	0.7
6	2.23	1.01	bd1	0.10	0.43	11.6
7	3.89	1.49	bd1	0.16	0.83	18.9
8	1.11	bd1	bd1	0.22	bd1	2.1
9	0.86	0.28	bd1	0.10	bd1	6.0
10	0.90	bd1	bd1	bd1	bd1	1.7
11	1.33	bd1	bd1	0.10	bd1	1.3
12	1.12	bd1	bd1	0.08	0.36	10.7
13	0.50	bd1	bd1	bd1	bd1	2.6
14	1.69	0.49	bd1	0.16	bd1	5.8
15	0.90	bd1	bd1	bd1	bd1	7.6
16	0.57	bd1	bd1	bd1	bd1	1.6
17	0.62	bd1	bd1	bd1	bd1	1.3
18	0.59	bd1	bd1	bd1	bd1	12.3
19	bd1	bd1	0.24	bd1	bd1	0.3
20	bd1	bd1	0.35	0.12	bd1	0.3
21	1.44	0.75	0.46	0.38	0.36	4.6
22	1.85	0.59	bd1	bd1	bd1	4.8
23	1.52	0.46	bd1	bd1	bd1	4.2
24	0.99	0.33	0.30	0.18	bd1	0.8
25	1.68	1.09	0.29	0.21	0.38	6.8
26	5.35	4.93	0.35	bd1	1.62	26.5
27	1.87	0.40	0.21	0.15	bd1	13.2
28	1.85	0.37	bd1	0.23	bd1	5.4
29	bd1	bd1	bd1	0.07	bd1	1.0
30	1.02	bd1	bd1	0.11	bd1	0.4
31	1.53	0.26	bd1	0.13	bd1	8.4

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	-	-	31	-	31
A. MEAN	1.31	-	-	0.13	-	5.7
S.D.	1.09	-	-	0.15	-	6.0
MIN.	bd1	-	-	bd1	-	0.3
MAX.	5.35	-	-	0.59	-	26.5

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})ION BAL.
RATIO

PRECIP

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
1	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	2
4	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	2
5	0.4	0.3	-	-	0.5	1.456	0.2	-	0.013	-	-	-	-	-	2
6	3.4	4.2	-	4.40	0.3	2.607	0.2	0.11	0.054	0.02	0.05	0.02	0.008	0.98	2
7	1.6	1.0	-	4.00	0.9	5.436	0.5	-	0.009	-	-	-	-	-	2
8	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	2
10	1.7	0.3	-	5.80	1.2	0.788	0.9	-	0.024	-	-	-	-	-	2
11	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	2
18	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	2
19	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	2
21	3.0	2.6	-	5.20	bd1	0.385	0.2	0.06	0.014	bd1	0.05	bd1	-	-	2
25	1.5	1.0	-	4.00	2.7	3.794	0.6	0.27	0.477	0.02	0.18	0.03	-	1.12	2
26	6.2	3.1	-	4.80	4.0	4.188	0.3	0.24	1.691	0.03	0.12	0.06	0.007	0.82	2
TOTAL PRECIP	22.2	12.5													
NO. OBS.	13	-	-	-	-	-	-	-	-	-	-	-	-	-	
A. MEAN	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	
STD. DEV.	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	
MINIMUM	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	
MAXIMUM	6.2	-	-	-	-	-	-	-	-	-	-	-	-	-	
P.W. MEAN			-	-	-	-	-	-	-	-	-	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MONTMORENCY FOREST

FEBRUARY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	1.21	0.46	bd1	bd1	0.40	4.8
2	2.13	0.68	bd1	bd1	0.54	4.2
3	1.78	0.29	bd1	0.24	bd1	9.8
4	3.22	0.90	bd1	0.18	0.69	12.4
5	4.53	1.81	bd1	0.19	0.92	24.8
6	4.19	3.70	bd1	0.14	0.92	25.0
7	5.32	3.84	bd1	0.11	1.34	25.7
8	5.20	1.58	bd1	bd1	1.00	11.9
9	3.26	0.99	bd1	0.18	0.70	10.4
10	2.78	2.15	bd1	0.09	0.73	16.4
11	0.53	0.69	bd1	bd1	bd1	5.3
12	0.96	0.45	bd1	0.08	bd1	6.2
13	4.21	3.65	0.28	0.30	0.77	20.2
14	4.86	1.82	0.19	0.14	0.72	24.5
15	5.37	3.12	0.28	0.28	1.13	18.4
16	7.69	6.29	0.42	0.27	1.97	36.3
17	5.73	3.18	0.23	bd1	1.31	4.4
18	4.95	1.90	0.22	0.10	1.08	5.1
19	6.12	3.62	0.24	0.15	1.32	2.6
20	0.78	0.38	0.26	bd1	bd1	bd1
21	bd1	bd1	0.30	bd1	bd1	bd1
22	0.81	bd1	0.35	0.10	bd1	1.0
23	bd1	bd1	0.31	bd1	bd1	0.4
24	1.96	0.44	0.22	0.12	0.36	1.5
25	2.68	bd1	bd1	bd1	bd1	1.1
26	bd1	bd1	bd1	bd1	bd1	bd1
27	bd1	bd1	bd1	bd1	bd1	bd1
28	bd1	bd1	bd1	bd1	bd1	2.9

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	-	28	28	28
A. MEAN	2.87	1.50	-	0.10	0.57	9.8
S.D.	2.27	1.64	-	0.10	0.56	10.2
MIN.	bd1	bd1	-	bd1	bd1	bd1
MAX.	7.69	6.29	-	0.30	1.97	36.3

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE		
1	30.9	25.1	-	5.10	0.4	0.540	0.1	0.07	0.021	bd1	0.03	bd1	0.003	-		2
2	15.2	13.4	-	5.10	0.5	0.288	0.1	0.01	0.023	bd1	0.01	bd1	0.012	-		3
5	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-		2
6	1.7	1.1	-	-	1.2	-	1.1	-	0.013	-	-	-	-	-		2
7	1.2	0.7	-	-	1.9	8.588	1.3	-	0.084	-	-	-	-	-		2
8	6.6	5.9	-	4.50	0.5	1.523	bd1	0.05	0.039	bd1	0.02	bd1	0.009	-		2
10	25.8	17.6	-	4.60	0.4	1.014	bd1	0.04	0.026	bd1	0.08	bd1	0.003	-		2
11	93.4	85.7	-	5.00	0.2	0.266	bd1	0.04	0.035	0.01	0.13	bd1	0.004	-		3
13	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-		2
14	-	0.2	-	-	2.0	3.232	2.6	-	0.013	-	-	-	-	-		2
16	5.0	2.6	-	3.90	4.4	7.791	0.6	0.26	0.918	0.04	0.59	0.05	0.024	0.94		3
18	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-		1
19	7.2	7.2	-	4.00	4.2	4.692	bd1	0.13	0.621	0.04	0.57	0.03	0.036	-		1
20	23.6	23.1	-	5.60	0.6	0.133	bd1	0.12	0.009	0.02	0.26	bd1	0.004	-		1
21	14.8	14.0	-	4.60	1.3	0.177	0.5	0.06	0.003	0.03	0.36	bd1	0.006	-		1
22	0.6	0.7	-	-	2.2	0.615	2.0	-	0.008	-	-	-	-	-		1
28	7.2	6.2	-	4.50	0.7	1.678	bd1	0.06	0.014	bd1	bd1	bd1	0.002	-		2
TOTAL PRECIP 235.5 203.5																
NO. OBS.	16	14	-	-	14	13	-	-	14	-	-	-	-	-		
A. MEAN	14.7	14.5	-	-	1.5	2.349	-	-	0.131	-	-	-	-	-		
STD. DEV.	23.2	22.1	-	-	1.4	2.919	-	-	0.278	-	-	-	-	-		
MINIMUM	0.4	0.2	-	-	0.2	0.133	-	-	0.003	-	-	-	-	-		
MAXIMUM	93.4	85.7	-	-	4.4	8.588	-	-	0.918	-	-	-	-	-		
P.W. MEAN	-	-	-	-	0.6	0.792	-	-	0.063	-	-	-	-	-		

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MONTMORENCY FOREST

MARCH 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	1.17	0.25	bd1	bd1	bd1	1.3
2	1.67	0.28	bd1	bd1	bd1	2.2
3	0.53	0.26	bd1	0.14	bd1	1.0
4	bd1	bd1	bd1	0.07	bd1	0.8
5	bd1	bd1	bd1	bd1	bd1	1.0
6	bd1	bd1	bd1	bd1	bd1	bd1
7	bd1	bd1	bd1	bd1	bd1	bd1
8	0.86	bd1	bd1	bd1	bd1	bd1
9	bd1	bd1	bd1	bd1	bd1	bd1
10	bd1	bd1	bd1	bd1	bd1	bd1
11	bd1	bd1	bd1	bd1	bd1	bd1
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	1.30	bd1	bd1	0.10	bd1	1.8
15	-	-	-	-	-	-
16	0.99	bd1	0.24	0.12	bd1	1.0
17	0.95	bd1	bd1	bd1	bd1	1.0
18	1.32	bd1	bd1	0.08	bd1	1.1
19	bd1	bd1	bd1	bd1	bd1	bd1
20	0.74	bd1	0.43	0.27	bd1	0.8
21	0.92	bd1	0.76	0.53	bd1	0.5
22	0.91	bd1	0.39	0.26	bd1	0.4
23	1.37	bd1	0.22	0.21	bd1	2.4
24	1.41	0.28	0.32	0.28	bd1	1.9
25	1.52	0.48	bd1	0.13	0.36	6.4
26	0.75	0.46	bd1	0.09	bd1	7.1
27	bd1	bd1	bd1	bd1	bd1	2.1
28	2.44	1.10	bd1	0.13	0.63	9.2
29	4.19	1.13	bd1	0.10	1.48	1.9
30	bd1	bd1	bd1	bd1	bd1	2.4
31	1.89	0.49	bd1	bd1	bd1	0.6

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	-	-	28	-	28
A. MEAN	0.89	-	-	0.09	-	1.7
S.D.	0.95	-	-	0.13	-	2.3
MIN.	bd1	-	-	bd1	-	bd1
MAX.	4.19	-	-	0.53	-	9.2

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	+VE/-VE	
1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	2
2	6.0	6.8	-	4.50	0.7	1.988	bd1	0.09	0.032	0.01	0.35	0.06	0.004	-	2
3	0.5	0.3	-	-	1.0	-	0.4	-	-	-	-	-	-	-	2
5	0.6	1.0	-	5.50	0.5	bd1	bd1	0.05	0.006	bd1	0.11	bd1	0.006	-	2
7	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	2
10	0.2	0.3	-	-	0.8	-	bd1	-	-	-	-	-	-	-	2
11	1.0	0.3	-	-	1.9	-	0.8	-	-	-	-	-	-	-	2
12	1.2	0.6	-	4.50	1.5	3.271	bd1	-	0.068	-	-	-	-	-	2
13	6.2	6.5	-	4.80	0.7	1.080	0.1	0.03	0.010	bd1	0.14	0.02	0.002	-	2
14	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	2
17	6.4	1.1	-	5.40	0.9	0.044	bd1	0.18	0.010	0.02	0.33	bd1	-	-	2
18	9.2	4.4	-	5.10	0.8	0.044	bd1	0.05	bd1	bd1	0.19	bd1	-	-	2
19	5.0	10.3	-	5.40	0.6	0.044	bd1	0.02	0.015	bd1	0.10	0.02	0.003	-	2
20	3.2	1.0	-	4.70	2.4	0.301	2.0	-	0.057	-	-	-	-	-	2
28	11.2	8.8	-	4.30	3.4	3.719	bd1	0.16	1.025	0.02	0.09	0.02	0.009	-	3
29	9.9	10.1	-	4.60	1.2	0.885	bd1	0.04	0.116	bd1	0.09	bd1	0.004	-	3
TOTAL PRECIP	61.8	51.5	-	-	-	-	-	-	-	-	-	-	-	-	-
NO. OBS.	16	13	-	-	13	-	-	-	-	-	-	-	-	-	-
A. MEAN	3.9	4.0	-	-	1.3	-	-	-	-	-	-	-	-	-	-
STD. DEV.	3.9	4.0	-	-	0.8	-	-	-	-	-	-	-	-	-	-
MINIMUM	0.2	0.3	-	-	0.5	-	-	-	-	-	-	-	-	-	-
MAXIMUM	11.2	10.3	-	-	3.4	-	-	-	-	-	-	-	-	-	-
P.W. MEAN	-	-	-	-	1.4	-	-	-	-	-	-	-	-	-	-

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MONTMORENCY FOREST

APRIL 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	3.62	0.86	bd1	bd1	0.60	1.7
2	1.42	bd1	bd1	bd1	bd1	bd1
3	4.01	4.70	bd1	0.13	1.68	15.1
4	4.55	2.98	bd1	0.15	1.32	6.4
5	4.07	1.41	bd1	bd1	1.02	3.2
6	1.04	0.30	bd1	bd1	bd1	1.5
7	1.60	1.75	bd1	0.15	0.56	5.2
8	9.54	5.06	0.21	0.10	2.28	14.6
9	bd1	bd1	bd1	bd1	bd1	bd1
10	0.99	0.30	bd1	bd1	bd1	2.6
11	2.18	1.00	bd1	bd1	0.40	3.9
12	1.59	bd1	bd1	bd1	bd1	1.3
13	1.41	0.43	bd1	bd1	bd1	2.1
14	0.84	bd1	bd1	bd1	bd1	2.0
15	2.91	0.39	bd1	0.19	bd1	5.2
16	1.81	0.69	bd1	0.11	0.39	3.0
17	5.28	5.22	0.21	0.11	1.99	11.6
18	1.80	0.39	bd1	bd1	bd1	3.0
19	1.91	bd1	bd1	0.08	bd1	1.2
20	2.24	0.28	bd1	0.13	bd1	1.0
21	2.28	0.34	bd1	0.15	0.36	1.5
22	1.71	bd1	bd1	bd1	bd1	0.8
23	bd1	bd1	bd1	bd1	bd1	2.2
24	1.08	bd1	bd1	bd1	bd1	1.1
25	0.84	bd1	bd1	bd1	bd1	1.0
26	bd1	bd1	bd1	bd1	bd1	0.3
27	bd1	bd1	bd1	bd1	bd1	0.4
28	bd1	bd1	bd1	bd1	bd1	0.4
29	bd1	bd1	bd1	bd1	bd1	2.1
30	bd1	bd1	bd1	bd1	bd1	0.4

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	-	30
A. MEAN	1.96	0.87	-	-	-	3.2
S.D.	2.04	1.54	-	-	-	4.0
MIN.	bd1	bd1	-	-	-	bd1
MAX.	9.54	5.22	-	-	-	15.1

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
1	7.1	7.2	-	4.40	2.8	3.541	bd1	0.39	0.568	0.06	0.12	0.04	0.008	-	1
3	4.6	5.0	-	4.50	3.4	3.763	bd1	0.82	0.859	0.08	0.15	0.10	0.011	-	1
4	23.0	23.5	-	4.30	2.5	2.258	bd1	0.23	0.376	0.03	0.07	0.02	0.008	-	1
5	5.7	4.1	-	4.50	2.7	1.505	bd1	0.37	0.272	0.04	0.06	0.03	0.003	-	1
9	39.9	38.4	-	5.20	0.5	0.753	bd1	0.16	0.142	0.02	0.02	bd1	0.002	-	1
10	1.8	2.0	-	4.40	3.6	8.145	0.5	1.10	1.423	0.18	0.28	0.06	0.009	0.92	1
14	18.6	13.4	-	4.90	0.6	0.620	bd1	0.15	bd1	0.02	0.06	bd1	0.002	-	3
15	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	2
17	2.2	2.6	-	5.00	1.4	0.620	0.5	0.24	0.090	0.03	0.40	0.01	0.005	0.88	1
23	3.7	2.8	-	5.10	0.9	0.841	bd1	0.33	0.014	0.04	0.21	0.04	-	-	2
24	0.5	1.0	-	-	-	-	-	-	-	-	-	-	-	-	2
28	15.1	13.7	-	4.60	1.2	0.664	bd1	0.11	0.067	0.01	0.02	bd1	0.003	-	3
29	1.2	0.7	-	4.60	3.9	-	0.8	0.64	-	0.08	1.13	0.04	-	-	2
30	0.5	0.3	-	-	1.2	-	bd1	0.23	-	0.04	-	-	-	-	3
TOTAL PRECIP 124.7 114.7															
NO. OBS.	14	13	-	11	12	10	-	12	10	12	11	11	-	-	
A. MEAN	8.9	8.8	-	4.59	2.1	2.271	-	0.40	0.381	0.05	0.23	0.03	-	-	
STD. DEV.	11.5	11.2	-	4.83	1.2	2.388	-	0.30	0.457	0.05	0.32	0.03	-	-	
MINIMUM	0.5	0.3	-	4.30	0.5	0.620	-	0.11	bd1	0.01	0.02	bd1	-	-	
MAXIMUM	39.9	38.4	-	5.20	3.9	8.145	-	1.10	1.423	0.18	1.13	0.10	-	-	
P.W. MEAN	-	-	-	4.65	1.4	1.427	-	0.24	0.227	0.03	0.08	0.01	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MONTMORENCY FOREST

MAY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.06	bd1	bd1	0.11	bd1	2.0
2	0.92	bd1	bd1	bd1	bd1	0.5
3	bd1	bd1	bd1	bd1	bd1	1.0
4	0.95	bd1	bd1	bd1	bd1	1.0
5	1.11	0.37	bd1	0.11	0.45	1.0
6	0.54	bd1	bd1	bd1	bd1	0.3
7	bd1	bd1	bd1	bd1	bd1	bd1
8	1.26	0.49	bd1	bd1	0.45	2.1
9	2.96	2.03	bd1	bd1	0.91	7.6
10	4.48	2.24	0.21	0.21	1.12	5.8
11	0.86	bd1	bd1	bd1	bd1	2.7
12	bd1	bd1	bd1	bd1	bd1	0.6
13	bd1	bd1	bd1	0.40	bd1	3.5
14	0.99	bd1	bd1	bd1	bd1	0.7
15	3.69	0.72	bd1	0.09	0.69	3.2
16	0.62	bd1	bd1	bd1	bd1	0.5
17	1.03	bd1	bd1	bd1	bd1	0.7
18	0.68	bd1	bd1	bd1	bd1	bd1
19	0.63	bd1	bd1	bd1	bd1	0.4
20	1.88	0.27	bd1	bd1	bd1	0.9
21	0.69	bd1	bd1	bd1	bd1	3.0
22	1.96	0.39	bd1	bd1	bd1	2.2
23	1.98	bd1	bd1	bd1	bd1	4.1
24	3.04	0.33	bd1	bd1	0.60	2.1
25	6.52	1.05	bd1	bd1	1.19	4.6
26	1.32	bd1	bd1	bd1	bd1	bd1
27	3.62	0.89	bd1	0.13	1.15	1.7
28	1.58	bd1	bd1	0.11	0.59	bd1
29	6.25	1.06	bd1	0.44	1.60	0.7
30	3.84	0.98	bd1	0.10	1.20	bd1
31	0.79	bd1	bd1	0.12	bd1	1.6

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	-	-	-	-	31
A. MEAN	1.78	-	-	-	-	1.8
S.D.	1.73	-	-	-	-	1.8
MIN.	bd1	-	-	-	-	bd1
MAX.	6.52	-	-	-	-	7.6

PRECIPITATION CONCENTRATIONS

(10^{-3} g l^{-1})

DAY	AMOUNT		pH										ION BAL. RATIO	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	
1	4.0	4.2	-	4.60	1.6	0.664	bd1	0.10	0.183	0.01	0.15	0.01	0.010	2
6	8.5	9.1	-	4.30	2.8	1.151	bd1	0.16	0.220	0.02	0.07	0.01	0.004	3
10	2.3	2.3	-	3.70	11.7	7.393	1.1	0.76	1.135	0.15	0.74	0.17	-	1
11	36.8	35.8	-	4.90	0.9	0.266	bd1	0.06	0.071	0.01	0.06	bd1	0.003	1
12	8.4	8.1	-	4.70	1.6	0.575	bd1	0.07	0.223	0.03	0.12	0.02	0.004	1
13	3.2	2.9	-	4.40	2.3	0.708	bd1	0.12	0.053	0.02	0.10	0.02	-	1
15	19.5	19.9	-	4.30	2.5	1.018	bd1	0.16	0.180	0.03	0.14	0.03	0.008	1
16	8.5	8.8	-	4.80	1.0	0.398	bd1	0.07	0.095	bd1	0.03	bd1	0.001	1
21	1.2	1.6	-	6.80	7.6	-	0.7	0.77	-	0.08	0.44	0.09	-	1
22	0.2	0.1	-	-	-	-	-	-	-	-	-	-	-	1
25	6.4	6.3	-	-	-	-	-	-	-	-	-	-	-	1
26	7.6	7.8	-	4.20	3.6	0.797	bd1	0.06	0.272	bd1	bd1	bd1	0.003	1
27	9.8	10.1	-	4.50	1.5	0.797	bd1	0.08	0.171	0.01	0.16	0.02	0.004	1
28	0.4	0.3	-	-	3.1	-	1.4	0.79	-	0.14	-	-	-	1
29	4.1	4.1	-	4.00	6.1	3.320	0.7	0.24	0.793	0.06	0.44	0.04	0.002	1
30	3.3	3.1	-	4.00	5.9	2.700	bd1	0.22	0.967	0.04	0.18	bd1	0.002	1
TOTAL PRECIP 124.2 124.5														
NO. OBS.	16	16	-	13	14	12	-	14	12	14	13	-	-	-
A. MEAN	7.8	7.8	-	4.26	3.7	1.649	-	0.26	0.364	0.04	0.20	-	-	-
STD. DEV.	9.1	8.9	-	4.27	3.1	2.033	-	0.28	0.375	0.05	0.21	-	-	-
MINIMUM	0.2	0.1	-	3.70	0.9	0.266	-	0.06	0.053	bd1	bd1	-	-	-
MAXIMUM	36.8	35.8	-	6.80	11.7	7.393	-	0.79	1.135	0.15	0.74	-	-	-
P.W. MEAN	-	-	-	4.43	2.3	0.913	-	0.12	0.210	0.02	0.12	-	-	-

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MONTMORENCY FOREST

JUNE 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	2.10	bd1	bd1	0.15	bd1	1.5
2	2.94	0.78	bd1	0.12	0.83	3.5
3	6.77	1.38	bd1	bd1	1.04	2.6
4	1.98	bd1	bd1	bd1	bd1	1.5
5	3.33	1.10	bd1	bd1	0.75	3.5
6	3.17	0.44	bd1	bd1	0.55	1.1
7	bd1	bd1	bd1	bd1	bd1	bd1
8	0.99	0.31	bd1	bd1	bd1	1.5
9	bd1	bd1	bd1	bd1	bd1	bd1
10	bd1	bd1	bd1	bd1	bd1	bd1
11	0.65	bd1	bd1	bd1	bd1	bd1
12	0.90	bd1	bd1	0.12	bd1	bd1
13	2.13	0.35	bd1	0.32	bd1	1.5
14	5.28	1.28	bd1	bd1	1.13	5.8
15	3.25	bd1	bd1	bd1	0.48	0.5
16	4.36	0.68	bd1	0.09	0.89	bd1
17	1.02	0.28	bd1	bd1	bd1	bd1
18	1.26	0.44	bd1	bd1	0.37	3.5
19	9.07	2.71	bd1	bd1	1.98	12.2
20	0.99	0.39	bd1	0.09	bd1	3.7
21	1.33	0.43	bd1	bd1	0.37	0.6
22	1.62	0.37	bd1	bd1	0.47	0.5
23	bd1	bd1	bd1	0.09	bd1	bd1
24	1.12	0.28	bd1	bd1	bd1	0.7
25	3.52	0.44	bd1	bd1	0.56	bd1
26	0.62	bd1	bd1	0.14	bd1	bd1
27	0.54	bd1	bd1	0.15	bd1	0.4
28	2.31	0.29	bd1	bd1	0.49	8.6
29	2.17	1.15	bd1	bd1	0.74	3.7
30	2.48	0.71	bd1	bd1	0.61	1.2

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	30	30
A. MEAN	2.20	0.46	-	-	0.38	1.9
S.D.	2.07	0.59	-	-	0.48	2.8
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	9.07	2.71	-	-	1.98	12.2

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	+VE/-VE	
5	7.8	7.8	-	4.80	2.3	0.753	bd1	0.15	0.639	0.02	0.03	0.05	0.014	-	1
6	0.4	1.0	-	-	2.3	-	bd1	-	-	-	-	-	-	-	1
8	18.6	18.9	-	4.60	1.3	0.487	bd1	0.05	0.125	bd1	bd1	0.01	0.005	-	1
9	0.2	0.3	-	-	2.2	-	1.1	-	-	-	-	-	-	-	1
14	3.6	3.6	-	4.40	1.8	1.328	bd1	0.19	0.325	0.03	0.07	0.01	0.011	-	1
15	9.0	8.1	-	4.50	1.5	0.575	bd1	0.13	0.100	0.02	0.05	bd1	0.005	-	1
16	21.5	21.2	-	4.60	1.2	0.664	bd1	0.06	0.109	0.01	0.08	0.07	0.005	-	1
22	50.2	48.2	-	4.90	0.6	0.266	bd1	0.04	0.031	bd1	bd1	bd1	0.003	-	1
24	19.7	19.2	-	4.20	2.9	1.240	bd1	0.05	0.259	bd1	bd1	bd1	0.004	-	1
25	16.2	18.6	-	4.70	0.9	0.620	bd1	0.06	0.080	bd1	bd1	bd1	0.008	-	1
29	0.4	0.3	-	-	13.2	-	0.8	-	-	-	-	-	-	-	1
30	44.5	42.7	-	4.50	1.9	0.664	bd1	0.09	0.242	0.01	0.03	bd1	0.004	-	1
TOTAL PRECIP 192.1 189.9															
NO. OBS.	12	12	-	9	12	9	-	9	9	-	-	-	9	-	
A. MEAN	16.0	15.8	-	4.53	2.7	0.733	-	0.09	0.212	-	-	-	0.007	-	
STD. DEV.	16.6	16.0	-	4.82	3.4	0.342	-	0.05	0.187	-	-	-	0.004	-	
MINIMUM	0.2	0.3	-	4.20	0.6	0.266	-	0.04	0.031	-	-	-	0.003	-	
MAXIMUM	50.2	48.2	-	4.90	13.2	1.328	-	0.19	0.639	-	-	-	0.014	-	
P.W. MEAN	-	-	-	4.57	1.5	0.610	-	0.07	0.159	-	-	-	0.005	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MONTMORENCY FOREST

JULY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	
1	1.26	0.47	bd1	bd1	bd1	bd1
2	1.15	0.47	bd1	0.28	0.32	1.0
3	3.20	1.57	bd1	0.38	0.78	1.9
4	9.13	1.34	bd1	0.31	1.85	2.3
5	7.42	0.37	bd1	bd1	1.52	bd1
6	6.26	0.31	bd1	0.20	0.96	2.4
7	bd1	0.27	bd1	bd1	bd1	bd1
8	1.13	0.21	bd1	bd1	bd1	1.3
9	0.86	bd1	bd1	bd1	bd1	bd1
10	bd1	bd1	bd1	bd1	bd1	bd1
11	bd1	bd1	bd1	bd1	bd1	bd1
12	0.63	bd1	bd1	0.17	bd1	bd1
13	0.98	0.33	bd1	bd1	bd1	bd1
14	1.34	bd1	bd1	bd1	bd1	bd1
15	bd1	0.23	bd1	bd1	bd1	bd1
16	bd1	bd1	bd1	bd1	bd1	bd1
17	0.78	0.28	bd1	bd1	bd1	0.6
18	1.72	0.38	bd1	bd1	bd1	2.4
19	3.06	0.49	bd1	bd1	0.74	1.1
20	4.46	0.54	bd1	bd1	0.96	1.4
21	bd1	bd1	bd1	bd1	bd1	bd1
22	bd1	bd1	bd1	bd1	bd1	0.8
23	0.38	bd1	bd1	bd1	bd1	bd1
24	1.01	0.39	bd1	bd1	0.41	0.8
25	5.62	2.13	bd1	bd1	1.58	3.2
26	12.08	1.09	bd1	bd1	1.87	2.2
27	bd1	0.22	bd1	bd1	bd1	bd1
28	0.60	0.35	bd1	bd1	bd1	bd1
29	0.80	0.49	bd1	bd1	0.40	0.9
30	bd1	0.27	bd1	bd1	bd1	bd1
31	1.34	0.53	bd1	bd1	0.41	2.3

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	-
A. MEAN	2.10	0.41	-	-	-	-
S.D.	3.02	0.50	-	-	-	-
MIN.	bd1	bd1	-	-	-	-
MAX.	12.08	2.13	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE		
4	-	0.1	-	-	5.0	-	1.8	-	-	-	-	-	-	-	-	1
5	0.8	1.3	-	4.50	2.7	1.682	bd1	-	0.346	-	-	-	-	-	-	1
6	5.8	6.5	-	4.30	3.7	0.398	bd1	0.16	0.144	0.03	0.06	bd1	0.002	-	-	1
9	8.7	9.1	-	4.50	2.1	0.575	bd1	0.12	0.287	0.01	0.01	bd1	0.002	-	-	1
10	1.2	2.0	-	4.90	1.2	0.398	bd1	-	bd1	-	-	-	0.012	-	-	1
13	15.5	15.3	-	4.90	0.4	0.443	bd1	0.12	0.037	bd1	0.12	bd1	0.005	-	-	1
14	0.6	1.0	-	4.80	0.9	-	bd1	-	-	-	-	-	-	-	-	1
20	29.3	27.4	-	4.40	1.9	0.708	bd1	0.07	0.229	bd1	0.04	0.02	0.004	-	-	1
21	0.5	0.3	-	-	2.4	-	0.7	-	-	-	-	-	-	-	-	1
26	16.2	16.3	-	4.20	3.3	1.461	bd1	0.10	0.268	bd1	0.20	bd1	0.007	-	-	1
TOTAL PRECIP	78.6	79.3														
NO. OBS.	9	10	-	8	10	7	-	-	7	-	-	-	-	-	-	
A. MEAN	8.7	7.9	-	4.49	2.4	0.809	-	-	0.187	-	-	-	-	-	-	
STD. DEV.	9.9	9.2	-	4.74	1.4	0.536	-	-	0.131	-	-	-	-	-	-	
MINIMUM	0.5	0.1	-	4.20	0.4	0.398	-	-	bd1	-	-	-	-	-	-	
MAXIMUM	29.3	27.4	-	4.90	5.0	1.682	-	-	0.346	-	-	-	-	-	-	
P.W. MEAN			-	4.42	2.0	0.780	-	-	0.197	-	-	-	-	-	-	

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
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DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MONTMORENCY FOREST

AUGUST 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	6.77	1.73	bd1	bd1	1.57	6.2
2	11.14	0.72	bd1	bd1	1.42	2.9
3	9.70	0.31	bd1	bd1	1.32	1.4
4	3.40	0.30	bd1	bd1	0.60	bd1
5	1.40	bd1	bd1	bd1	0.41	0.7
6	bd1	bd1	bd1	bd1	bd1	0.6
7	bd1	bd1	bd1	bd1	bd1	bd1
8	bd1	0.20	bd1	bd1	bd1	bd1
9	0.73	bd1	bd1	bd1	bd1	4.4
10	7.65	1.22	bd1	bd1	1.22	1.2
11	7.02	0.76	bd1	bd1	1.17	1.5
12	4.57	0.35	bd1	bd1	0.75	1.2
13	bd1	bd1	bd1	bd1	bd1	bd1
14	0.86	1.10	0.23	0.36	bd1	1.0
15	1.77	0.80	bd1	bd1	0.53	1.8
16	0.72	bd1	bd1	bd1	bd1	1.1
17	0.46	bd1	bd1	bd1	bd1	1.4
18	bd1	bd1	bd1	bd1	bd1	bd1
19	0.86	0.28	bd1	bd1	bd1	0.7
20	1.61	0.35	bd1	bd1	bd1	0.9
21	1.00	bd1	bd1	bd1	bd1	0.6
22	4.33	0.72	bd1	bd1	0.90	1.7
23	6.71	0.47	0.25	bd1	0.94	2.0
24	3.59	bd1	bd1	bd1	bd1	bd1
25	0.47	bd1	bd1	bd1	bd1	bd1
26	1.37	0.68	bd1	bd1	0.48	1.8
27	bd1	bd1	bd1	bd1	bd1	0.7
28	bd1	bd1	bd1	bd1	bd1	bd1
29	4.51	1.27	bd1	bd1	0.87	2.2
30	28.43	1.75	bd1	bd1	4.08	2.0
31	23.22	1.72	bd1	bd1	3.51	2.9

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	31
A. MEAN	4.27	0.48	-	-	-	1.3
S.D.	6.58	0.57	-	-	-	1.4
MIN.	bd1	bd1	-	-	-	bd1
MAX.	28.43	1.75	-	-	-	6.2

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE		
2	7.2	7.5	-	4.40	2.4	0.575	bd1	0.06	0.140	bd1	0.08	bd1	0.005	-		1
4	13.0	12.7	-	5.10	2.4	0.487	bd1	0.06	0.245	bd1	0.15	0.04	0.002	-		1
5	46.5	45.6	-	5.20	0.5	0.133	bd1	bd1	0.015	bd1	0.04	bd1	0.001	-		1
6	4.2	4.2	-	5.50	0.4	0.089	bd1	bd1	bd1	bd1	0.13	bd1	0.005	-		1
8	5.4	5.7	-	4.40	1.6	0.708	bd1	0.02	0.070	bd1	0.03	bd1	0.001	-		1
9	10.8	10.4	-	4.50	1.5	0.443	bd1	0.02	0.064	bd1	0.17	bd1	0.004	-		1
10	17.0	16.0	-	4.40	1.7	0.708	bd1	0.05	0.127	bd1	0.05	bd1	0.004	-		1
11	16.8	16.3	-	4.40	2.0	0.487	bd1	0.02	0.138	bd1	0.02	bd1	0.001	-		1
12	4.5	5.9	-	4.20	3.0	0.443	bd1	0.06	0.139	bd1	0.05	bd1	0.002	-		1
15	4.8	5.7	-	-	1.5	0.753	bd1	0.06	0.327	bd1	0.09	bd1	0.005	-		1
16	27.2	27.0	-	4.90	0.8	0.089	bd1	bd1	0.008	bd1	0.02	bd1	0.001	-		1
19	3.0	3.6	-	4.30	2.8	1.195	bd1	0.36	0.057	0.03	0.05	bd1	0.003	-		1
23	30.2	28.7	-	4.30	2.6	1.682	bd1	0.14	0.371	0.02	0.02	0.02	0.002	-		1
TOTAL PRECIP 190.6 189.3																
NO. OBS.	13	13	-	12	13	13	-	13	13	-	13	-	13	-		
A. MEAN	14.7	14.6	-	4.49	1.8	0.599	-	0.07	0.131	-	0.07	-	0.003	-		
STD. DEV.	13.0	12.4	-	4.70	0.9	0.446	-	0.10	0.119	-	0.05	-	0.002	-		
MINIMUM	3.0	3.6	-	4.20	0.4	0.089	-	bd1	bd1	-	0.02	-	0.001	-		
MAXIMUM	46.5	45.6	-	5.50	3.0	1.682	-	0.36	0.371	-	0.17	-	0.005	-		
P.W. MEAN.			-	4.58	1.5	0.568	-	0.05	0.127	-	0.05	-	0.002	-		

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MONTMORENCY FOREST

SEPTEMBER 1981

AIR CONCENTRATIONS $\mu(10^{-6} \text{ gm}^{-3})$

DAY	ARTICULATE					GAS	
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2	
1	8.89	1.42	bd1	bd1	2.04	1.6	
2	1.45	0.60	bd1	bd1	bd1	1.8	
3	1.45	0.46	bd1	bd1	bd1	bd1	
4	3.34	0.46	bd1	bd1	0.75	0.8	
5	4.08	0.35	bd1	bd1	0.58	1.1	
6	1.45	0.27	bd1	bd1	bd1	1.0	
7	1.85	0.36	bd1	bd1	bd1	bd1	
8	9.83	1.05	bd1	bd1	1.14	bd1	
9	-	-	-	-	-	-	
10	-	-	-	-	-	-	
11	-	-	-	-	-	-	
12	-	-	-	-	-	-	
13	-	-	-	-	-	-	
14	-	-	-	-	-	-	
15	-	-	-	-	-	-	
16	-	-	-	-	-	-	
17	-	-	-	-	-	-	
18	-	-	-	-	-	-	
19	-	-	-	-	-	-	
20	-	-	-	-	-	-	
21	-	-	-	-	-	-	
22	-	-	-	-	-	-	
23	-	-	-	-	-	-	
24	-	-	-	-	-	-	
25	-	-	-	-	-	-	
26	-	-	-	-	-	-	
27	-	-	-	-	-	-	
28	-	-	-	-	-	-	
29	-	-	-	-	-	-	
30	-	-	-	-	-	-	

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE		
1	2.4	2.6	-	4.60	2.2	0.841	bd1	0.06	0.416	bd1	0.07	bd1	0.003	-		1
8	37.0	36.2	-	4.50	1.5	0.797	bd1	0.01	0.120	bd1	0.05	0.02	0.002	-		1
9	1.1	0.7	-	4.90	0.5	0.177	0.1	-	0.042	-	-	-	-	-		1
10	0.4	0.3	-	4.30	2.3	-	0.1	-	-	-	-	-	-	-		1
11	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-		1
13	1.0	1.0	-	5.10	1.6	1.018	0.2	-	0.813	-	-	-	-	-		1
19	0.2	-	-	4.60	1.3	0.885	0.1	-	0.224	-	-	-	-	-		1
20	2.4	3.3	-	5.30	0.6	bd1	0.2	0.15	bd1	0.03	0.18	0.02	0.006	-		1
21	0.8	1.0	-	4.90	0.3	bd1	0.1	-	bd1	-	-	-	-	-9.00		3
22	0.1	0.2	-	-	9.0	-	2.1	-	-	-	-	-	-	-		1
23	22.4	21.5	-	5.00	0.5	0.177	0.1	0.04	0.023	bd1	bd1	bd1	0.003	-		1
24	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-		1
26	7.2	7.3	-	4.30	2.4	0.664	bd1	0.04	0.197	bd1	bd1	bd1	0.001	-		1
27	7.0	6.2	-	3.90	6.3	2.258	0.1	0.08	0.954	bd1	0.02	0.01	0.001	-		1
28	4.8	2.9	-	4.80	0.8	0.177	bd1	0.06	0.009	bd1	bd1	bd1	0.007	-		3
29	3.4	0.7	-	5.30	0.3	-	0.2	-	-	-	-	-	-	-		3
30	2.2	0.7	-	5.70	0.3	-	0.1	-	-	-	-	-	-	-		3
TOTAL PRECIP	93.6	84.6														
NO. OBS.	17	14	-	14	15	-	15	-	-	-	-	-	-	-		
A. MEAN	5.5	6.0	-	4.57	2.0	-	0.2	-	-	-	-	-	-	-		
STD. DEV.	9.7	10.3	-	4.49	2.5	-	0.5	-	-	-	-	-	-	-		
MINIMUM	0.1	0.2	-	3.90	0.3	-	bd1	-	-	-	-	-	-	-		
MAXIMUM	37.0	36.2	-	5.70	9.0	-	2.1	-	-	-	-	-	-	-		
P.W. MEAN			-	4.51	1.6	-	0.1	-	-	-	-	-	-	-		

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MONTMORENCY FOREST

OCTOBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
6	-	-	-	-	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	0.44	bd1	bd1	bd1	bd1	bd1
27	0.71	bd1	bd1	bd1	bd1	bd1
28	0.90	bd1	bd1	bd1	bd1	0.4
29	0.61	bd1	bd1	bd1	bd1	bd1
30	0.78	bd1	bd1	bd1	bd1	0.5
31	0.73	0.57	bd1	bd1	0.28	1.2

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	+VE/-VE	
1	1.2	1.3	-	4.40	2.5	1.018	0.1	0.08	0.054	0.01	0.02	bd1	-	-	3
2	1.9	1.8	-	5.10	0.9	0.354	0.2	0.20	0.006	0.02	bd1	bd1	0.004	-	1
3	5.8	5.2	-	5.30	0.7	0.044	0.1	0.07	bd1	bd1	bd1	bd1	0.003	-	1
4	3.0	2.3	-	5.10	1.5	0.221	0.2	0.15	bd1	0.03	0.31	bd1	0.002	-	1
6	5.2	4.9	-	4.40	2.1	1.018	0.1	0.09	0.067	0.01	0.04	bd1	0.006	-	1
7	5.8	3.6	-	4.80	0.7	0.266	bd1	0.06	bd1	0.01	0.02	bd1	0.002	-	3
8	1.3	1.0	-	6.00	0.6	bd1	0.2	-	bd1	-	-	-	-	-	3
9	0.8	0.7	-	5.90	1.0	-	0.4	-	-	-	-	-	-	-	3
15	3.1	2.9	-	4.20	4.4	3.010	0.2	0.33	0.350	0.03	0.06	0.03	0.002	0.72	1
16	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	1
18	18.2	17.9	-	4.50	1.4	0.668	0.1	0.03	0.113	bd1	bd1	bd1	0.002	-	3
19	1.1	0.7	-	4.80	2.3	-	0.3	-	-	-	-	-	-	-	3
20	8.3	7.5	-	4.20	2.8	4.338	0.1	0.35	0.668	0.04	0.04	0.02	0.003	0.93	2
21	4.0	3.9	-	4.90	0.4	0.744	bd1	0.07	0.005	0.01	0.02	bd1	0.002	-	2
22	15.4	15.3	-	4.00	3.3	4.188	0.1	0.19	0.513	0.03	0.05	0.02	0.005	1.03	3
23	12.2	12.4	-	4.40	2.3	0.637	bd1	0.03	0.120	bd1	0.02	bd1	0.002	-	3
24	0.3	1.0	-	4.90	2.1	-	0.2	bd1	-	bd1	bd1	bd1	0.015	-	2
25	5.4	5.2	-	4.70	0.9	0.412	0.2	0.05	0.049	0.01	0.08	bd1	0.004	-	1
26	5.0	4.9	-	5.40	0.4	0.031	bd1	0.05	0.005	bd1	bd1	bd1	0.006	-	3
27	12.9	12.1	-	5.20	0.3	0.115	0.1	bd1	0.005	bd1	0.03	bd1	0.002	-	1
31	0.9	1.0	-	4.80	4.5	-	0.3	-	-	-	-	-	-	-	2
TOTAL PRECIP 112.0 105.6															
NO. OBS.	21	20	-	20	20	16	20	16	16	-	-	-	15	-	
A. MEAN	5.3	5.3	-	4.60	1.8	1.067	0.1	0.11	0.122	-	-	-	0.004	-	
STD. DEV.	5.2	5.2	-	4.59	1.3	1.441	0.1	0.11	0.205	-	-	-	0.003	-	
MINIMUM	0.2	0.7	-	4.00	0.3	bd1	bd1	bd1	bd1	-	-	-	0.002	-	
MAXIMUM	18.2	17.9	-	6.00	4.5	4.338	0.4	0.35	0.668	-	-	-	0.015	-	
P.W. MEAN	-	-	-	4.44	1.7	1.345	0.1	0.10	0.173	-	-	-	0.003	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MONTMORENCY FOREST

NOVEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	2.93	0.59	bd1	bd1	0.68	0.8
2	1.16	bd1	bd1	bd1	0.33	bd1
3	0.39	bd1	0.17	bd1	bd1	0.7
4	bd1	bd1	bd1	bd1	bd1	bd1
5	0.51	0.57	bd1	bd1	0.33	4.5
6	1.08	0.95	bd1	bd1	bd1	0.6
7	0.68	bd1	bd1	bd1	bd1	bd1
8	0.83	0.55	bd1	bd1	bd1	1.2
9	bd1	bd1	bd1	0.14	bd1	bd1
10	0.43	0.26	bd1	bd1	bd1	1.4
11	0.44	0.41	bd1	bd1	bd1	0.8
12	0.47	0.29	bd1	bd1	bd1	1.0
13	1.14	0.36	bd1	bd1	bd1	0.7
14	0.39	0.15	bd1	bd1	bd1	1.1
15	0.75	0.28	bd1	bd1	bd1	0.7
16	1.21	0.69	bd1	bd1	0.47	1.4
17	0.80	bd1	bd1	bd1	bd1	1.0
18	0.32	bd1	bd1	bd1	bd1	bd1
19	bd1	bd1	bd1	bd1	bd1	1.0
20	bd1	bd1	bd1	bd1	bd1	bd1
21	bd1	bd1	bd1	bd1	bd1	bd1
22	bd1	bd1	bd1	bd1	bd1	bd1
23	bd1	bd1	bd1	bd1	bd1	bd1
24	bd1	bd1	bd1	bd1	bd1	bd1
25	bd1	bd1	bd1	bd1	bd1	bd1
26	0.53	bd1	bd1	bd1	bd1	0.5
27	0.54	bd1	bd1	bd1	bd1	bd1
28	0.94	bd1	bd1	bd1	bd1	2.5
29	0.45	bd1	bd1	bd1	bd1	bd1
30	0.55	bd1	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	-	-	-	-	30
A. MEAN	0.55	-	-	-	-	0.7
S.D.	0.60	-	-	-	-	1.0
MIN.	bd1	-	-	-	-	bd1
MAX.	2.93	-	-	-	-	4.5

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	
3	1.3	0.3	-	-	1.4	-	0.6	-	-	-	-	-	-	-	2
5	0.4	0.7	-	3.70	7.8	-	0.7	-	-	-	-	-	-	-	1
6	12.6	13.0	-	4.30	1.8	1.474	bd1	0.04	0.050	bd1	0.14	bd1	0.003	-	1
7	-	1.0	-	4.90	1.2	-	bd1	0.21	-	0.05	0.16	0.01	-	-	2
8	1.0	1.0	-	4.30	3.6	-	bd1	0.71	-	0.13	0.43	0.06	-	-	2
9	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	2
10	0.4	0.3	-	4.20	4.3	-	0.8	-	-	-	-	-	-	-	2
11	1.6	1.3	-	4.30	1.5	-	bd1	0.28	-	0.05	0.22	0.02	0.001	-	2
18	0.9	0.3	-	-	0.9	-	bd1	-	-	-	-	-	-	-	2
20	8.9	5.9	-	4.90	0.7	0.235	bd1	0.03	bd1	bd1	0.02	0.01	0.002	-	2
21	4.8	3.3	-	5.00	0.4	0.111	bd1	0.05	0.006	0.01	0.05	bd1	0.006	-	2
22	1.6	0.7	-	5.00	0.6	-	bd1	-	-	-	-	-	-	-	2
26	4.4	2.8	-	5.20	bd1	0.381	bd1	0.09	0.004	0.02	0.06	bd1	0.004	-	2
27	7.4	3.6	-	4.40	0.5	1.660	bd1	0.06	0.008	bd1	0.20	0.18	0.001	-	2
28	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	2
TOTAL PRECIP	45.8	34.2													
NO. OBS.	14	13	-	11	13	-	-	-	-	-	-	-	-	-	
A. MEAN	3.3	2.6	-	4.34	1.9	-	-	-	-	-	-	-	-	-	
STD. DEV.	3.9	3.5	-	4.26	2.2	-	-	-	-	-	-	-	-	-	
MINIMUM	0.2	0.3	-	3.70	bd1	-	-	-	-	-	-	-	-	-	
MAXIMUM	12.6	13.0	-	5.20	7.8	-	-	-	-	-	-	-	-	-	
P.W. MEAN			-	4.50	1.1	-	-	-	-	-	-	-	-	-	

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MONTMORENCY FOREST

DECEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	1.13	bd1	bd1	bd1	0.45	1.2
2	0.65	0.74	bd1	bd1	0.48	bd1
3	0.54	0.54	bd1	bd1	0.37	1.8
4	0.95	0.63	bd1	bd1	0.43	0.6
5	1.63	0.25	bd1	bd1	0.36	1.1
6	0.60	bd1	bd1	bd1	bd1	0.8
7	bd1	bd1	bd1	bd1	bd1	bd1
8	0.33	bd1	bd1	bd1	bd1	bd1
9	bd1	bd1	bd1	bd1	bd1	bd1
10	bd1	bd1	bd1	bd1	bd1	bd1
11	bd1	bd1	bd1	bd1	bd1	bd1
12	bd1	bd1	bd1	bd1	bd1	bd1
13	0.93	bd1	bd1	bd1	bd1	2.4
14	3.26	1.43	bd1	bd1	0.80	5.5
15	2.36	bd1	bd1	bd1	0.49	2.7
16	0.90	bd1	bd1	bd1	bd1	1.6
17	0.54	bd1	bd1	bd1	bd1	1.4
18	0.95	0.21	bd1	bd1	bd1	1.1
19	1.26	0.28	bd1	bd1	bd1	2.1
20	0.54	bd1	bd1	bd1	bd1	1.8
21	2.43	1.48	bd1	bd1	bd1	11.7
22	0.70	0.35	bd1	bd1	bd1	12.6
23	2.14	0.61	bd1	bd1	0.52	4.7
24	2.19	1.56	bd1	bd1	0.77	2.8
25	0.82	0.36	bd1	bd1	bd1	2.6
26	0.87	0.31	bd1	bd1	bd1	2.4
27	1.53	0.57	bd1	bd1	0.42	2.9
28	1.66	1.01	bd1	bd1	0.47	2.1
29	1.57	0.39	bd1	bd1	0.39	3.6
30	0.93	0.30	bd1	bd1	0.42	2.5
31	0.51	bd1	bd1	bd1	bd1	3.4

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	31
A. MEAN	1.03	0.35	-	-	-	2.4
S.D.	0.82	0.46	-	-	-	3.0
MIN.	bd1	bd1	-	-	-	bd1
MAX.	3.26	1.56	-	-	-	12.6

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
1	2.8	2.6	-	4.40	1.4	1.611	bd1	0.20	0.006	0.03	0.30	0.03	0.004	-	3
2	-	0.9	-	6.20	3.1	-	1.7	0.53	-	0.06	1.18	0.89	0.022	-	3
3	-	0.7	-	5.70	1.0	-	bd1	-	-	-	-	-	0.003	-	2
5	-	0.5	-	6.10	0.7	-	bd1	-	-	-	-	-	-	-	2
6	-	1.2	-	5.90	0.4	0.058	bd1	0.13	0.006	0.04	0.23	bd1	0.008	-	2
7	-	0.4	-	6.30	0.7	-	0.7	-	-	-	-	-	-	-	2
9	-	1.1	-	6.40	0.8	0.199	0.5	0.28	0.036	0.05	0.22	0.03	-	0.65	2
14	-	0.5	-	6.20	1.9	-	1.0	-	-	-	-	-	-	-	2
15	-	1.2	-	6.40	0.7	0.235	bd1	0.19	0.008	0.04	0.15	bd1	-	-	2
16	-	2.1	-	6.30	bd1	0.137	bd1	0.20	0.055	0.05	0.18	bd1	0.008	-	2
17	-	0.4	-	-	-	-	4.3	-	-	-	-	-	-	-	2
18	-	0.5	-	6.40	0.9	-	1.1	-	-	-	-	-	-	-	2
19	-	0.7	-	6.50	0.7	-	0.5	-	-	-	0.93	0.03	-	-	2
21	-	0.5	-	6.30	2.1	-	0.6	-	-	-	-	-	-	-	2
23	-	1.0	-	6.00	1.0	-	bd1	0.13	-	0.02	0.51	0.03	-	-	2
24	-	1.2	-	5.90	0.3	-	bd1	0.19	-	0.03	0.38	0.06	0.007	-	2
25	-	1.6	-	-	2.8	-	3.4	-	-	-	-	-	-	-	2
27	-	1.0	-	6.20	0.5	-	bd1	0.07	-	0.02	0.22	bd1	0.005	-	2
28	-	1.2	-	5.70	0.8	-	bd1	0.10	-	0.02	0.43	bd1	0.010	-	2
TOTAL PRECIP	2.8	19.3													
NO. OBS.	-	19	-	17	18	-	-	-	-	-	-	-	-	-	
A. MEAN	-	1.0	-	5.51	1.1	-	-	-	-	-	-	-	-	-	
STD. DEV.	-	0.6	-	5.02	0.8	-	-	-	-	-	-	-	-	-	
MINIMUM	-	0.4	-	4.40	bd1	-	-	-	-	-	-	-	-	-	
MAXIMUM	-	2.6	-	6.50	3.1	-	-	-	-	-	-	-	-	-	
P.W. MEAN			-	5.17	1.1	-	-	-	-	-	-	-	-	-	

PRECIP TYPE
 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

T - TRACE AMOUNT

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

APPENDIX 6

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS IN AIR AND PRECIPITATION AT KEJIMKUJIK

KEJIMKUJIK

JULY 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ²⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	.68	.45	bd1	.30	bd1	-
2	3.69	.32	bd1	.12	.40	-
3	15.06	.41	bd1	.10	3.41	-
4	5.65	.68	bd1	.11	1.02	-
5	3.79	.54	bd1	.10	.79	-
6	bd1	bd1	bd1	.10	bd1	-
7	.42	.18	bd1	.07	bd1	-
8	1.06	.51	bd1	.20	bd1	-
9	4.27	.93	bd1	.20	1.59	-
10	1.87	.34	bd1	.05	.48	-
11	3.67	.31	bd1	.06	.45	-
12	2.57	.23	bd1	.11	.39	-
13	1.36	.31	bd1	bd1	bd1	-
14	1.47	.35	bd1	bd1	.33	-
15	6.96	3.37	bd1	.88	1.64	-
16	8.09	1.34	bd1	.89	.85	-
17	18.98	1.06	bd1	.68	3.60	-
18	3.69	2.58	bd1	.10	.83	-
19	2.26	1.60	bd1	.08	.63	-
20	7.12	.36	bd1	bd1	.92	-
21	5.39	1.19	bd1	bd1	-	-
22	10.73	1.01	bd1	.26	1.26	-
23	5.34	.62	bd1	.11	.86	.9
24	4.43	.85	-	.11	-	.8
25	1.23	.47	bd1	.15	.58	2.0
26	7.51	1.32	bd1	.10	1.78	1.7
27	11.76	1.66	bd1	bd1	1.54	3.8
28	10.16	.98	bd1	.10	1.38	2.5
29	1.32	.28	bd1	.29	.45	bd1
30	1.53	.24	bd1	bd1	bd1	2.6
31	1.37	.16	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	31	29	-
A. MEAN	4.95	.80	-	.17	.87	-
S.D.	4.53	.74	-	.23	.91	-
MIN.	bd1	bd1	-	bd1	bd1	-
MAX.	18.98	3.37	-	.89	3.60	-

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH		SO ₄ ²⁻	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE		
2	1.4	1.3	-	3.60	9.9	-	.9	.96	-	.13	.84	.17	-	-		1
5	7.4	7.8	4.00	4.10	3.2	1.585	.5	.21	.121	.04	.48	.04	.043	1.15		1
6	1.5	1.0	-	-	2.7	-	6.5	.33	-	.15	-	-	-	-		1
8	33.2	34.5	4.40	4.30	1.0	1.018	.2	.11	.033	.02	.07	.03	.003	1.48		1
12	16.0	15.0	4.40	4.40	1.5	1.018	.3	.13	.033	.02	.64	.03	.069	1.39		1
20	5.4	4.9	-	3.90	7.9	3.497	.5	.27	.447	.05	1.19	.10	.287	.94		1
22	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-		1
29	6.4	5.2	-	5.10	1.8	.531	2.4	.16	.009	.15	2.55	.09	.383	1.23		1
TOTAL PRECIP																
74.3 69.7																
NO. OBS.	8	7	-	6	7	-	7	7	-	7	6	6	-	-		
A. MEAN	9.3	10.0	-	4.03	4.0	-	1.6	.31	-	.08	.96	.08	-	-		
STD. DEV.	10.7	11.8	-	4.06	3.5	-	2.3	.30	-	.06	.86	.06	-	-		
MINIMUM	1.4	1.0	-	3.60	1.0	-	.2	.11	-	.02	.07	.03	-	-		
MAXIMUM	33.2	34.5	-	5.10	9.9	-	6.5	.98	-	.15	2.55	.17	-	-		
P.W. MEAN	-	-	-	4.24	2.1	-	.6	.16	-	.04	.57	.04	-	-		

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

KEJIMKUJIK

AUGUST 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	7.26	.95	bd1	.08	1.28	1.9
2	12.38	.56	bd1	bd1	1.63	bd1
3	-	-	-	-	-	-
4	7.91	2.30	-	.13	-	2.4
5	6.58	.90	bd1	.12	* 1.22	3.7
6	9.22	.71	bd1	.12	* 1.44	1.2
7	12.42	.65	bd1	.20	* 1.97	2.2
8	9.72	.63	bd1	.20	* 1.87	3.0
9	7.16	.33	bd1	.34	* 1.46	1.1
10	-	-	-	-	-	-
11	1.04	.40	bd1	.17	* .58	2.2
12	bd1	.48	bd1	bd1	bd1	bd1
13	bd1	bd1	bd1	bd1	bd1	bd1
14	1.66	.17	bd1	bd1	.51	2.8
15	5.99	.33	bd1	bd1	1.01	bd1
16	-	-	-	-	-	-
17	bd1	bd1	bd1	bd1	bd1	bd1
18	1.01	.16	bd1	* .20	.35	1.3
19	4.78	.80	bd1	.20	2.34	bd1
20	.95	.34	bd1	.38	.52	bd1
21	1.11	.41	bd1	.47	bd1	bd1
22	1.95	.34	bd1	.33	.71	2.3
23	1.57	.21	bd1	.14	.79	bd1
24	-	-	-	-	-	-
25	1.65	.34	bd1	.22	.54	bd1
26	5.73	1.00	-	.23	-	1.9
27	12.93	1.48	-	.19	-	bd1
28	bd1	.22	bd1	.09	bd1	1.7
29	.99	.34	bd1	.09	bd1	1.7
30	1.65	.59	bd1	.17	.43	bd1
31	14.01	.91	bd1	.30	1.49	3.0

bd1 - BELOW DETECTION LIMIT

NO. OBS.	27	27	-	27	24	27
A. MEAN	4.80	.58	-	.16	.84	1.2
S.D.	4.59	.48	-	.13	.71	1.2
MIN.	bd1	bd1	-	bd1	bd1	bd1
MAX.	14.01	2.30	-	.47	2.34	3.7

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE	TYPE
8	5.5	4.9	-	3.90	5.1	2.568	.5	.25	.371	.05	.49	.05	.004	1.15	1
11	14.0	14.0	5.10	4.80	.5	.221	bd1	.10	.019	.01	.01	.01	.002	-	1
12	3.8	3.6	-	3.70	6.7	3.232	.6	.17	.415	.04	.46	.06	.003	1.22	1
25	T	T	-	-	-	-	-	-	-	-	-	-	-	-	1
27	1.0	T	-	-	-	-	-	-	-	-	-	-	-	-	1
31	1.0	T	-	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL PRECIP	25.3	22.5													
NO. OBS.	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A. MEAN	4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STD. DEV.	5.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MINIMUM	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAXIMUM	14.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P.W. MEAN															

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
IN BRACKET'S AND IS NOT INCLUDED IN STATISTICS

KEJIMKUJIK

SEPTEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	10.31	.91	bd1	.16	1.08	3.3
2	9.40	1.04	bd1	.35	1.14	bd1
3	.83	.28	bd1	.18	.35	bd1
4	.84	.15	bd1	bd1	bd1	1.5
5	.51	.26	bd1	.10	bd1	bd1
6	3.38	.76	bd1	.27	.85	1.3
7	1.56	.24	bd1	bd1	.32	bd1
8	.78	.26	bd1	.14	bd1	1.0
9	bd1	.21	bd1	.08	bd1	bd1
10	1.36	.25	bd1	.15	.46	bd1
11	2.34	1.13	.96	.85	.62	bd1
12	.58	bd1	bd1	.30	bd1	bd1
13	bd1	.12	bd1	.12	bd1	1.4
14	bd1	bd1	bd1	bd1	bd1	1.8
15	.60	bd1	bd1	.28	bd1	1.2
16	1.85	.41	-	1.00	bd1 *	2.1
17	10.29	2.11	-	3.06	-	bd1
18	1.91	.25	bd1	bd1	bd1	bd1
19	1.31	.26	bd1	.47	bd1	bd1
20	2.24	.72	1.50	.82	bd1	bd1
21	5.75	.78	bd1	.60	1.06 *	2.0
22	10.88	.45	bd1	.13	1.30 *	2.1
23	12.17	1.29	bd1	.58	2.01	2.5
24	1.15	.43	1.30	.84	bd1	bd1
25	2.00	.44	bd1	.59	.49	bd1
26	1.10	bd1	bd1	.45	bd1	1.7
27	1.77	.56	1.19	.71	.58	bd1
28	bd1	.16	bd1	.35	bd1	bd1
29	4.39	1.91	bd1	.75	1.38	1.7
30	5.47	2.07	1.37	1.18	1.10	1.8

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	30	29	-
A. MEAN	3.16	.58	-	.48	.44	-
S.D.	3.70	.60	-	.59	.56	-
MIN.	bd1	bd1	-	bd1	bd1	-
MAX.	12.17	2.11	-	3.06	2.01	-

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

(10^{-3} g l^{-1})

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE	TYPE
9	5.2	4.9	-	3.70	7.3	3.541	.5	.17	.670	.06	.47	.09	.008	1.23	1
14	43.6	45.3	4.40	4.30	2.0	.797	.1	.11	.131	.02	.08	.01	.004	-	1
15	1.0	T	-	-	-	-	-	-	-	-	-	-	-	-	1
16	.4	T	-	-	-	-	-	-	-	-	-	-	-	-	1
18	5.8	5.9	-	4.30	1.8	.797	.4	.11	.108	.04	.31	.02	.005	1.28	1
25	9.4	9.1	4.50	4.80	1.0	.310	.6	.17	bd1	.05	.51	.08	.028	-	1
TOTAL PRECIP															
65.4 65.2															
NO. OBS.	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A. MEAN	10.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STD. DEV.	16.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MINIMUM	.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAXIMUM	43.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P.W. MEAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

KEJIMKUJIK

OCTOBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	bd1	bd1	bd1	bd1	bd1	bd1
2	bd1	bd1	bd1	.14	bd1	bd1
3	4.96	1.03	-	.39	bd1	3.7
4	3.03	.92	.86	.53	bd1	bd1
5	1.67	.44	bd1	.16	bd1	4.1
6	2.32	bd1	bd1	bd1	bd1	bd1
7	1.92	.18	bd1	bd1	bd1	1.5
8	4.09	.57	bd1	.25	.68	1.4
9	1.14	.38	bd1	.39	.33	1.4
10	bd1	.14	bd1	.29	bd1	1.1
11	1.57	.27	1.00	.62	bd1	2.6
12	3.70	.73	bd1	.16	.85	2.3
13	1.36	.14	bd1	.27	bd1	1.8
14	.51	bd1	.72	.40	bd1	bd1
15	.51	.11	bd1	bd1	bd1	bd1
16	1.07	.80	bd1	.14	bd1	bd1
17	5.02	1.27	bd1	.19	.95	1.1
18	4.02	.50	bd1	.24	.73	1.9
19	2.75	.58	bd1	bd1	.73	bd1
20	1.27	.23	bd1	bd1	.42	1.2
21	1.26	.36	bd1	.25	.54	bd1
22	1.88	.56	bd1	.21	.60	2.1
23	bd1	bd1	bd1	.27	bd1	1.2
24	.61	2.18	bd1	.20	bd1	1.3
25	1.70	.37	1.44	.84	.35	bd1
26	1.56	.72	-	1.88	.40	1.6
27	1.12	.34	-	.81	.40	bd1
28	6.01	.92	-	.27	-	bd1
29	1.82	.27	.71	.33	.32	1.0
30	.88	.19	bd1	.22	.26	bd1
31	4.79	3.59	1.08	1.14	1.13	4.2

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	31	30	31
A. MEAN	2.02	.57	-	.34	.29	1.1
S.D.	1.66	.73	-	.39	.35	1.3
MIN.	bd1	bd1	-	bd1	bd1	bd1
MAX.	6.01	3.59	-	1.88	1.13	4.2

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

KEJIMKUJIK

OCTOBER 1980

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

														ION BAL. RATIO		PRECIP
DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE	
	STD (mm)	COLL (mm)	FIELD	LAB												
2	.4	T	-	-	-	-	-	-	-	-	-	-	-	-	1	
3	5.4	5.2	-	4.50	.5	.177	.4	.11	.019	.04	.33	.05	.005	2.26	1	
6	13.6	13.7	4.50	4.70	.7	.487	.1	.12	.013	.02	.08	.05	.004	1.37	1	
7	.5	T	-	-	-	-	-	-	-	-	-	-	-	-	1	
11	46.0	45.6	-	4.30	2.8	.930	.8	.15	.273	.07	.53	.05	.002	1.07	1	
12	7.0	6.9	-	4.30	3.0	.885	.8	.17	.269	.07	.53	.05	.002	1.04	1	
13	.2	T	-	-	-	-	-	-	-	-	-	-	-	-	1	
14	.1	T	-	-	-	-	-	-	-	-	-	-	-	-	1	
18	20.0	32.9	-	4.50	1.7	.974	1.1	.17	.205	.06	.74	.05	.001	1.10	1	
19	.3	T	-	-	-	-	-	-	-	-	-	-	-	-	1	
22	.6	T	-	-	-	-	-	-	-	-	-	-	-	-	1	
25	28.0	27.7	-	5.00	.7	.133	1.8	.23	.004	.12	1.05	.04	.015	1.14	1	
28	2.8	2.3	-	4.40	4.7	.044	6.1	.65	.055	1.10	6.73	.38	-	1.72	1	

TOTAL PRECIP 124.9 134.3

NO. OBS.	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A. MEAN	9.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STD. DEV.	14.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MINIMUM	.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAXIMUM	46.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P.W. MEAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1 IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

KEJIMKUJIK

NOVEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.07	.37	.72	.34	.32	1.0
2	.57	bd1	.52	.26	.24	1.2
3	.85	.22	bd1	.33	.33	1.6
4	1.34	.37	-	.78	.31	.9
5	1.19	.25	bd1	.40	.54	bd1
6	.88	.45	.92	.64	.41	1.1
7	4.14	2.99	-	1.27	1.26	5.7
8	3.36	1.22	-	1.42	.92	3.9
9	.86	.15	.56	.37	.43	bd1
10	3.06	.85	-	.10	-	3.2
11	1.01	.10	*	.63	.43	bd1
12	1.31	.13	*	.78	.47	bd1
13	1.03	.12	bd1	.32	bd1	3.2
14	1.71	.22	bd1	.22	.32	1.7
15	.93	bd1	bd1	.34	bd1	.8
16	.63	bd1	*	.99	.57	.9
17	.78	.19	bd1	.40	bd1	1.6
18	1.42	.21	bd1	.21	bd1	bd1
19	1.09	.12	bd1	.24	.25	1.4
20	1.73	.31	bd1	.21	.40	2.1
21	2.05	3.07	bd1	.35	.39	1.2
22	2.91	.39	bd1	.31	.32	bd1
23	3.97	.77	bd1	.25	.53	.9
24	4.11	.85	bd1	.32	.70	bd1
25	* .89	.25	bd1	.19	bd1	1.9
26	* 2.26	.16	-	.50	bd1	.9
27	* .96	.09	-	.90	bd1	1.0
28	* 1.03	.21	.95	.56	bd1	bd1
29	* 5.24	1.58	.86	.72	bd1	1.5
30	* 1.90	.32	bd1	.29	.39	1.0

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	24	30	29	30
A. MEAN	1.81	.53	.29	.46	.28	1.3
S.D.	1.25	.77	.39	.30	.31	1.3
MIN.	.57	bd1	bd1	.10	bd1	bd1
MAX.	5.24	3.07	.99	1.42	1.26	5.7

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

KEJIMKUJIK

NOVEMBER 1980

PRECIPITATION CONCENTRATIONS

(10^{-3} g l^{-1})

DAY	AMOUNT		pH		SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE	TYPE
1	.8	T	-	-	-	-	-	-	-	-	-	-	-	-	3
4	9.0	9.1	-	4.90	.8	.469	.9	.19	.004	.13	.62	.04	.007	1.19	1
5	4.0	3.9	-	5.20	.4	.195	bd1	.16	.001	.06	.10	.02	.004	-	1
7	2.0	2.3	-	4.00	4.2	-	3.4	.66	-	.33	2.06	.21	.007	-	1
8	6.0	3.9	-	4.00	4.4	2.970	1.9	.40	.390	.18	1.26	.10	.015	1.11	3
9	42.2	41.8	-	4.80	.6	.372	.1	.12	.041	.02	.10	.02	.004	1.43	1
10	5.8	5.9	-	4.80	.7	.350	.1	.12	.046	.02	.08	.04	.003	1.34	3
16	T	T	-	-	-	-	-	-	-	-	-	-	-	-	3
18	32.9	-	-	-	-	-	-	-	-	-	-	-	-	-	2
22	14.6	-	-	-	-	-	-	-	-	-	-	-	-	-	1
25	21.4	-	-	-	-	-	-	-	-	-	-	-	-	-	1
26	13.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2
28	29.6	-	-	-	-	-	-	-	-	-	-	-	-	-	1
29	9.8	-	-	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL PRECIP 191.1 66.9															
NO. OBS.	14	8	-	-	-	-	-	-	-	-	-	-	-	-	-
A. MEAN	13.7	8.4	-	-	-	-	-	-	-	-	-	-	-	-	-
STD. DEV.	13.1	13.8	-	-	-	-	-	-	-	-	-	-	-	-	-
MINIMUM	T	T	-	-	-	-	-	-	-	-	-	-	-	-	-
MAXIMUM	42.2	41.8	-	-	-	-	-	-	-	-	-	-	-	-	-
P.W. MEAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

KEJIMKUJIK

DECEMBER 1980

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1 *	2.30	1.15	.82	.63	.64	bd1
2	2.88	.69	bd1	.29	.59	2.7
3	bd1	1.58	bd1	.40	.44	2.0
4	.43	.09	bd1	.08	bd1	2.4
5	.46	bd1	bd1	.28	bd1	1.2
6	.85	bd1	bd1	.28	bd1	2.4
7	1.18	bd1	bd1	.05	bd1	7.8
8	5.63	1.27	bd1	.38	bd1	2.2
9	2.33	.24	bd1	.30	.30	2.6
10	2.09	.46	bd1	.28	.30	6.2
11	1.16	.30	bd1	.27	bd1	2.7
12	1.48	.57	bd1	.15	bd1	1.3
13	4.23	1.56	bd1	.29	.92	6.0
14	1.75	.39	bd1	.27	.33	5.0
15	.81	.31	.64	.39	bd1	1.4
16	1.08	.25	bd1	.17	bd1	4.2
17	1.44	.27	bd1	.32	bd1	2.6
18	3.20	1.65	.89	.78	.55	8.8
19	2.32	.94	.78	.57	.52	6.5
20	1.00	.36	.90	.53	bd1	4.6
21	1.96	.52	bd1	.36	.31	7.0
22	1.48	.25	bd1	.11	.35	5.5
23	2.19	.27	bd1	.08	bd1	6.9
24	4.18	1.58	bd1	.20	.73	6.9
25	1.28	.29	bd1	.26	.27	2.8
26	1.50	.27	bd1	.21	bd1	1.3
27	2.18	.72	bd1	.13	.43	2.8
28	1.63	.44	bd1	.27	.41	5.0
29	1.38	.26	bd1	.15	bd1	3.1
30	-	-	-	-	-	-
31	1.42	.24	bd1	.24	.28	3.9

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	30	30	30
A. MEAN	1.86	.56	-	.29	.24	3.9
S.D.	1.21	.51	-	.17	.27	2.3
MIN.	bd1	bd1	-	.05	bd1	bd1
MAX.	5.63	1.65	-	.78	.92	8.8

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH		SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)	FIELD	LAB										+VE/-VE	TYPE
2	17.0	-	-	-	-	-	-	-	-	-	-	-	-	-	1
3	31.5	-	-	-	-	-	-	-	-	-	-	-	-	-	1
4	5.2	-	-	-	-	-	-	-	-	-	-	-	-	-	2
8	8.0	-	-	-	-	-	-	-	-	-	-	-	-	-	1
9	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2
10	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	2
11	7.5	-	-	-	-	-	-	-	-	-	-	-	-	-	2
12	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	2
14	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2
16	29.6	-	-	-	-	-	-	-	-	-	-	-	-	-	2
17	11.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2
18	T	-	-	-	-	-	-	-	-	-	-	-	-	-	2
19	4.0	3.3	-	4.40	2.0	2.213	.9	.46	.264	.12	.77	.17	.036	1.21	2
20	.8	2.0	-	4.60	2.5	1.372	11.7	.65	.063	.76	6.30	.29	-	1.00	2
23	13.0	11.4	-	5.10	.4	.266	.3	.12	.008	.04	.45	.14	.008	1.95	2
24	9.5	9.4	-	4.70	1.1	.930	1.3	.18	.046	.12	.88	.07	.008	1.07	3
27	4.0	3.9	-	4.70	.8	.620	1.0	.17	.028	.08	.85	.11	-	1.39	2
29	23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	1
30	2.6	3.3	-	4.70	.8	.841	1.2	.21	.036	.11	.94	.11	-	1.31	1
TOTAL PRECIP 179.6 33.3															
NO. OBS.	19	6	-	6	6	6	6	6	6	6	6	6	-	6	
A. MEAN	9.5	5.6	-	4.66	1.3	1.040	2.7	.30	.074	.21	1.70	.15	-	1.32	
STD. DEV.	9.4	3.	-	4.98	.8	.680	4.4	.21	.095	.27	2.26	.08	-	.34	
MINIMUM	T	2.0	-	4.40	.4	.266	.3	.12	.008	.04	.45	.07	-	1.00	
MAXIMUM	31.5	11.4	-	5.10	2.5	2.213	11.7	.65	.264	.76	6.30	.29	-	1.95	
P.W. MEAN	-	-	-	4.75	.9	.794	1.1	.20	.055	.10	.83	.12	-	-	

PRECIP TYPE
 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

T - TRACE AMOUNT

NOTE: DAY () - NUMBER OF DAYS SAMPLED WHEN GREATER THAN 1
 IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

KEJIMKUJIK

JANUARY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	1.60	0.27	bd1	0.19	0.45	5.1
2	1.60	0.25	bd1	0.22	0.47	5.1
3	1.12	bd1	0.37	0.24	0.37	2.4
4	1.45	0.22	bd1	0.25	0.44	2.4
5	1.02	0.29	bd1	0.23	0.37	2.1
6	1.81	0.48	bd1	0.21	0.41	1.5
7	bd1	0.36	0.48	0.29	0.40	3.9
8	1.85	0.43	0.43	0.33	0.46	3.7
9	1.99	0.38	bd1	0.17	0.33	0.8
10	1.84	bd1	bd1	0.18	bd1	1.1
11	bd1	0.16	bd1	0.15	bd1	4.0
12	2.26	0.41	bd1	0.24	0.53	7.0
13	0.92	bd1	0.63	0.38	0.40	1.9
14	0.96	0.33	0.79	0.53	0.45	1.1
15	bd1	bd1	bd1	bd1	bd1	3.0
16	bd1	0.26	bd1	bd1	0.37	1.6
17	1.32	bd1	bd1	bd1	0.44	1.5
18	1.30	0.22	0.51	0.33	0.42	7.7
19	1.39	0.28	0.71	0.42	bd1	2.1
20	0.91	0.23	1.00	0.59	bd1	1.7
21	0.96	0.49	bd1	0.39	bd1	4.1
22	0.94	bd1	0.44	0.39	bd1	1.2
23	4.59	0.58	-	0.17	-	bd1
24	1.74	0.29	bd1	0.17	bd1	1.6
25	1.79	0.45	bd1	0.41	0.53	4.6
26	3.01	1.68	-	1.13	0.86	10.2
27	2.41	1.80	0.85	0.69	0.95	1.5
28	1.92	0.54	0.53	0.33	0.62	5.2
29	1.44	0.29	bd1	0.23	0.40	6.6
30	1.41	0.28	0.48	0.32	0.42	7.9
31	1.47	0.37	0.61	0.35	0.44	6.7

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	31	30	31
A. MEAN	1.45	0.37	-	0.31	0.35	3.5
S.D.	0.92	0.40	-	0.22	0.25	2.5
MIN.	bd1	bd1	-	bd1	bd1	bd1
MAX.	4.59	1.80	-	1.13	0.95	10.2

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

														ION BAL.	
AMOUNT		pH												RATIO	PRECIP
DAY	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE
2	10.4	11.7	-	5.00	0.5	0.664	1.9	0.04	0.009	0.11	1.01	0.05	0.002	0.89	2
5	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	2
7	40.5	39.1	-	4.50	1.5	0.916	3.2	0.06	0.037	0.19	1.72	0.07	0.003	0.94	2
8	1.1	1.3	-	4.40	2.2	1.611	11.3	-	0.140	-	-	-	-	-	2
10	32.7	35.8	-	5.60	bd1	0.221	0.2	0.01	0.006	0.03	0.12	0.01	0.002	-	2
12	23.1	13.0	-	5.30	0.2	0.208	0.1	bd1	0.004	0.01	0.07	bd1	0.003	-	2
13	8.8	8.1	-	5.50	0.4	0.190	0.5	0.02	0.067	0.03	0.31	0.02	0.009	0.88	2
15	2.0	2.6	-	4.10	0.4	4.294	0.8	0.04	0.100	0.04	0.32	0.04	0.004	1.06	2
17	16.8	16.9	-	5.00	0.4	0.518	0.6	bd1	0.035	0.03	0.33	0.02	0.002	-	2
19	1.8	2.3	-	4.50	2.2	1.253	7.4	0.19	0.191	0.43	3.94	0.17	0.007	0.96	2
22	9.4	8.5	-	4.90	0.5	0.664	1.1	bd1	0.077	0.06	0.56	0.04	0.002	-	2
23	3.6	4.2	-	4.90	0.8	0.739	0.4	0.13	0.050	0.04	0.21	0.05	0.021	0.86	2
TOTAL PRECIP 150.6 143.5															
NO. OBS.	12	11	-	11	11	11	11	10	11	10	10	10	10	-	-
A. MEAN	12.6	13.0	-	4.66	0.8	1.025	2.5	0.05	0.065	0.10	0.86	0.05	0.006	-	-
STD. DEV.	13.2	13.0	-	4.64	0.8	1.171	3.6	0.06	0.059	0.13	1.19	0.05	0.006	-	-
MINIMUM	0.4	1.3	-	4.10	bd1	0.190	0.1	bd1	0.004	0.01	0.07	bd1	0.002	-	-
MAXIMUM	40.5	39.1	-	5.60	2.2	4.294	11.3	0.19	0.191	0.43	3.94	0.17	0.021	-	-
P.W. MEAN			-	4.83	0.6	0.585	1.4	0.03	0.031	0.08	0.72	0.03	0.003		

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

FEBRUARY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	0.87	bd1	0.70	0.37	0.32	1.6
2	1.41	0.46	-	1.36	bd1	2.0
3	3.14	1.20	-	0.75	0.77	3.9
4	1.29	0.40	bd1	0.18	0.38	5.2
5	1.03	0.46	bd1	bd1	0.40	6.1
6	4.08	1.39	0.87	0.53	0.46	2.7
7	2.73	1.63	bd1	0.19	0.75	8.3
8	2.59	1.08	-	0.71	0.67	4.0
9	5.85	1.07	-	0.80	0.75	4.1
10	3.89	0.88	-	0.85	0.85	7.2
11	6.08	1.03	-	2.81	1.85	11.1
12	bd1	bd1	bd1	0.29	bd1	3.3
13	1.29	0.28	bd1	0.22	0.44	2.1
14	2.40	0.27	0.55	0.35	0.45	1.9
15	2.75	0.65	bd1	0.26	0.69	bd1
16	5.94	2.34	-	1.68	0.85	14.2
17	4.03	2.32	0.49	0.52	1.01	5.9
18	5.11	1.19	bd1	0.22	1.72	5.1
19	5.80	1.14	bd1	0.24	1.73	5.9
20	5.61	0.34	bd1	bd1	-	2.1
21	2.39	0.20	0.59	0.39	0.35	2.6
22	bd1	0.25	0.77	0.42	0.37	bd1
23	bd1	bd1	bd1	bd1	bd1	0.5
24	1.72	0.16	bd1	0.27	0.36	1.5
25	bd1	bd1	bd1	0.20	bd1	4.0
26	bd1	bd1	bd1	bd1	bd1	8.1
27	bd1	bd1	bd1	bd1	bd1	4.2
28	0.94	bd1	bd1	0.19	0.38	1.1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	21	28	27	28
A. MEAN	2.53	0.67	0.19	0.49	0.58	4.2
S.D.	2.11	0.68	0.32	0.61	0.52	3.3
MIN.	bd1	bd1	bd1	bd1	bd1	bd1
MAX.	6.08	2.34	0.87	2.81	1.85	14.2

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$ ION BAL.
RATIO

PRECIP

DAY	AMOUNT		pH		$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
2	17.0	17.6	-	5.00	0.9	0.328	3.5	0.13	0.023	0.21	2.81	0.26	0.008	1.34	1
3	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2
4	1.8	1.6	-	4.20	0.7	4.732	1.7	0.21	0.175	0.12	1.24	0.11	-	1.08	2
5	2.6	2.6	-	4.20	0.4	4.197	0.9	0.10	0.073	0.05	0.83	0.08	-	1.14	2
6 (3)	39.4	36.5	-	4.80	0.5	0.460	0.6	0.05	0.070	0.05	0.51	0.06	0.002	1.45	3
9	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	2
11	26.0	22.8	-	4.90	0.8	0.509	3.1	0.11	0.064	0.18	1.81	0.11	0.002	1.06	1
14	1.6	2.0	-	4.40	1.3	2.063	2.3	0.21	0.149	0.17	1.73	0.11	-	1.19	2
17	1.6	2.0	-	6.20	2.0	1.842	0.9	0.24	0.155	0.10	0.89	0.06	-	0.66	1
20	2.4	3.3	-	4.20	4.3	2.019	1.4	0.21	0.447	0.11	0.87	0.08	-	0.91	3
25	2.6	2.6	-	4.70	2.3	0.443	2.1	0.20	0.108	0.13	1.35	0.08	-	0.94	1
26	2.2	1.6	-	6.30	1.9	0.266	2.4	0.22	0.049	0.12	2.50	0.10	-	1.11	1
TOTAL PRECIP	59.0	56.1	-	-	-	-	-	-	-	-	-	-	-	-	-
NO. OBS.	11	9	-	9	9	9	9	9	9	9	9	9	-	9	-
A. MEAN	5.4	6.2	-	4.52	1.6	1.822	2.0	0.18	0.138	0.13	1.56	0.11	-	1.05	-
STD. DEV.	8.3	8.0	-	4.57	1.2	1.676	0.9	0.05	0.127	0.05	0.72	0.06	-	0.19	-
MINIMUM	0.2	1.6	-	4.20	0.4	0.266	0.9	0.10	0.023	0.05	0.83	0.06	-	0.66	-
MAXIMUM	26.0	22.8	-	6.30	4.3	4.732	3.5	0.24	0.447	0.21	2.81	0.26	-	1.34	-
P.W. MEAN	-	-	-	4.74	1.1	0.884	2.8	0.14	0.078	0.17	1.98	0.15	-	-	-

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MARCH 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	2.03	0.37	bd1	0.21	0.41	1.0
2	3.02	0.34	bd1	0.22	0.45	0.8
3	1.61	0.23	bd1	0.21	0.50	3.0
4	0.90	0.20	0.82	0.47	0.36	3.5
5	bd1	0.19	bd1	0.22	0.34	1.8
6	bd1	bd1	bd1	bd1	bd1	bd1
7	bd1	bd1	2.59	1.53	bd1	bd1
8	bd1	bd1	0.94	0.42	bd1	bd1
9	1.79	0.18	bd1	bd1	bd1	1.3
10	2.04	0.31	bd1	bd1	0.43	2.9
11	1.00	0.25	bd1	bd1	bd1	1.3
12	1.10	0.28	bd1	bd1	0.33	0.9
13	4.65	2.48	bd1	0.19	1.03	3.0
14	1.92	0.48	bd1	bd1	0.49	1.9
15	1.40	0.33	1.20	1.17	bd1	0.6
16	4.24	2.98	0.91	0.84	1.18	4.6
17	1.34	bd1	0.97	0.49	bd1	1.2
18	1.40	bd1	bd1	0.21	0.40	0.8
19	2.51	0.18	bd1	bd1	0.46	0.7
20	3.27	0.43	0.83	0.43	-	bd1
21	0.87	bd1	3.25	3.79	bd1	bd1
22	bd1	bd1	1.46	1.67	bd1	0.9
23	1.85	0.48	0.48	0.54	bd1	1.8
24	1.47	0.31	0.48	0.57	bd1	1.6
25	bd1	bd1	0.97	0.81	bd1	0.5
26	2.71	1.11	1.28	1.57	0.70	2.0
27	3.33	1.13	1.31	1.47	0.65	1.4
28	bd1	0.31	0.87	0.83	0.38	1.5
29	7.73	4.55	1.78	2.69	2.74	4.6
30	5.34	1.43	1.24	1.75	1.49	11.2
31	2.41	bd1	0.43	0.57	bd1	0.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	31	31	30	31
A. MEAN	1.93	0.60	0.70	0.74	0.41	1.8
S.D.	1.78	1.01	0.82	0.88	0.59	2.2
MIN.	bd1	bd1	bd1	bd1	bd1	bd1
MAX.	7.73	4.55	3.25	3.79	2.74	11.2

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH										ION BAL.		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	+VE/-VE	
1	2.6	2.6	-	4.00	4.9	4.086	bd1	0.20	0.493	0.05	0.42	0.07	0.007	-	3
6	1.5	1.3	-	-	2.0	0.691	0.5	-	0.176	-	-	-	-	-	3
10	2.4	2.3	-	4.30	3.4	1.554	bd1	0.14	0.286	0.03	0.39	0.06	0.006	-	2
13	1.0	1.6	-	4.00	4.1	6.950	0.5	0.59	0.483	0.17	-	-	-	-	2
14	26.2	22.8	-	4.40	2.2	2.284	1.3	0.23	0.364	0.15	1.25	0.07	0.004	1.19	3
15	0.6	1.3	-	-	4.7	0.434	29.8	-	0.111	-	-	-	-	-	2
16	41.0	33.6	-	5.10	0.8	0.646	0.2	0.07	0.106	0.02	0.14	0.02	0.003	0.77	3
17	20.8	21.2	-	5.20	1.3	0.261	5.1	0.14	0.099	0.30	2.77	0.11	0.003	0.94	3
18	1.8	2.0	-	4.80	1.0	0.434	1.2	0.09	0.079	0.07	0.79	0.03	-	1.04	2
21	3.4	4.2	-	4.70	1.3	0.301	1.5	0.07	0.062	0.09	0.91	0.04	0.010	1.00	3
27	4.0	7.5	-	4.20	1.4	3.913	0.4	0.07	0.155	0.04	0.20	0.03	0.004	0.85	1
29	1.8	1.3	-	4.10	3.7	4.214	1.1	0.59	0.495	0.13	-	-	-	-	1
30	39.0	38.8	-	5.10	0.9	0.173	0.2	0.02	0.054	0.01	0.10	bd1	0.001	-	1
31	2.3	2.0	-	5.10	1.0	0.398	bd1	0.10	0.107	0.02	0.53	0.06	-	-	1
TOTAL PRECIP 148.4 142.5															
NO. OBS.	14	14	-	12	14	14	14	12	14	12	10	10	-	-	
A. MEAN	10.6	10.2	-	4.38	2.3	1.881	3.0	0.19	0.219	0.09	0.75	0.05	-	-	
STD. DEV.	14.7	13.2	-	4.44	1.5	2.108	7.8	0.19	0.170	0.09	0.80	0.03	-	-	
MINIMUM	0.6	1.3	-	4.00	0.8	0.173	bd1	0.02	0.054	0.01	0.10	bd1	-	-	
MAXIMUM	41.0	38.8	-	5.20	4.9	6.950	29.8	0.59	0.495	0.30	2.77	0.11	-	-	
P.W. MEAN			-	4.72	1.4	0.991	1.3	0.11	0.155	0.09	0.76	0.04	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

APRIL 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	1.94	0.17	2.47	2.74	0.54	0.6
2	1.88	0.24	1.57	1.87	0.47	1.1
3	4.07	2.11	1.84	1.41	0.52	0.9
4	3.62	1.30	2.75	2.08	1.02	1.6
5	2.47	0.53	2.14	1.53	0.59	0.5
6	1.38	0.26	bd1	0.22	0.62	1.9
7	1.26	0.32	1.79	1.22	0.68	0.6
8	3.12	2.63	1.93	1.70	1.55	5.0
9	3.76	1.52	2.34	1.86	1.34	0.8
10	1.33	0.30	0.70	0.47	0.79	0.7
11	2.36	1.49	0.54	0.53	1.08	1.4
12	1.18	bd1	bd1	0.15	bd1	bd1
13	2.66	0.55	0.58	0.63	0.82	0.9
14	1.37	0.27	0.91	1.69	bd1	bd1
15	1.68	bd1	0.76	1.45	bd1	2.7
16	2.61	0.53	0.95	2.35	bd1	3.0
17	4.28	2.69	1.05	3.28	1.24	3.1
18	4.92	1.39	bd1	0.85	0.86	2.8
19	1.43	bd1	bd1	0.14	bd1	0.9
20	1.10	bd1	bd1	bd1	bd1	0.5
21	1.62	bd1	0.44	0.38	bd1	2.7
22	1.06	bd1	0.71	0.63	bd1	2.8
23	0.91	0.31	0.38	0.38	bd1	1.6
24	bd1	bd1	bd1	bd1	bd1	0.7
25	0.98	bd1	bd1	0.21	bd1	bd1
26	0.89	0.32	0.60	0.63	bd1	0.6
27	1.24	0.30	bd1	0.19	bd1	0.9
28	2.32	0.86	bd1	bd1	0.51	1.7
29	5.36	0.74	bd1	bd1	0.82	3.7
30	3.88	0.37	bd1	bd1	0.46	2.9

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	30	30	30	30
A. MEAN	2.22	0.64	0.82	0.95	0.46	1.6
S.D.	1.34	0.78	0.88	0.92	0.48	1.2
MIN.	bd1	bd1	bd1	bd1	bd1	bd1
MAX.	5.36	2.69	2.75	3.28	1.55	5.0

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

														ION BAL.	
AMOUNT		pH												RATIO	PRECIP
DAY	STD	COLL	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE
	(mm)	(mm)													
2	10.0	10.4	-	4.40	2.3	1.240	3.4	0.17	0.184	0.23	1.93	0.09	0.001	1.00	1
4	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	1
5	14.5	14.3	-	4.80	1.2	0.708	1.0	0.17	0.209	0.08	0.58	0.04	0.001	1.06	1
6	2.8	2.6	-	5.60	1.0	0.487	0.8	0.14	0.151	0.06	0.84	0.06	0.003	1.14	1
9	2.0	2.0	-	4.60	1.6	1.328	0.6	0.24	bd1	0.07	0.47	0.04	0.012	-	1
11	14.0	12.1	-	4.40	1.5	1.417	0.5	0.07	0.183	0.04	0.29	0.02	0.002	1.02	1
14	10.2	9.8	-	4.70	0.8	0.443	0.7	0.05	0.030	0.05	0.46	0.02	0.001	1.11	1
18	8.2	7.2	-	3.90	5.3	5.401	1.7	0.17	0.782	0.12	0.82	bd1	0.002	-	1
20	8.0	14.3	-	4.70	1.4	0.531	bd1	0.07	0.104	0.02	0.08	bd1	0.001	-	1
23	4.6	4.2	-	5.30	0.5	0.266	bd1	0.07	0.035	0.02	0.24	bd1	0.012	-	1
24	7.4	6.5	-	4.90	0.8	0.398	bd1	0.06	0.048	0.02	0.06	bd1	0.002	-	1
29	21.6	20.8	-	3.90	6.1	3.010	1.1	0.18	0.690	0.07	0.47	0.04	0.003	0.97	1
TOTAL PRECIP 103.7 104.2															
NO. OBS.	12	11	-	11	11	11	11	11	11	11	11	-	11	-	-
A. MEAN	8.6	9.5	-	4.41	2.0	1.384	0.9	0.13	0.220	0.07	0.57	-	0.004	-	-
STD. DEV.	6.0	5.7	-	4.35	1.9	1.546	1.0	0.06	0.266	0.06	0.52	-	0.004	-	-
MINIMUM	0.4	2.0	-	3.90	0.5	0.266	bd1	0.05	bd1	0.02	0.06	-	0.001	-	-
MAXIMUM	21.6	20.8	-	5.60	6.1	5.401	3.4	0.24	0.782	0.23	1.93	-	0.012	-	-
P.W. MEAN			-	4.28	2.6	1.634	1.0	0.13	0.298	0.07	0.57	-	0.002		

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

KEJIMKUJIK

MAY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	2.73	0.33	bd1	bd1	bd1	1.4
2	1.65	0.20	bd1	bd1	bd1	bd1
3	bd1	bd1	bd1	bd1	bd1	bd1
4	bd1	bd1	bd1	bd1	bd1	0.7
5	bd1	bd1	bd1	bd1	bd1	bd1
6	bd1	bd1	bd1	bd1	bd1	bd1
7	bd1	bd1	bd1	bd1	bd1	0.5
8	1.22	bd1	bd1	bd1	bd1	1.2
9	bd1	bd1	0.44	0.44	0.36	bd1
10	bd1	bd1	1.47	1.58	bd1	bd1
11	1.15	0.20	1.04	1.03	bd1	1.3
12	1.58	bd1	0.95	0.62	bd1	bd1
13	5.03	1.24	bd1	1.07	bd1	3.6
14	5.99	1.42	bd1	0.16	1.09	5.7
15	7.95	1.05	bd1	0.21	1.04	1.9
16	1.37	0.27	bd1	bd1	bd1	1.1
17	1.44	0.27	bd1	bd1	bd1	bd1
18	1.66	0.28	bd1	0.17	bd1	0.6
19	1.94	1.25	0.71	1.45	bd1	1.8
20	bd1	bd1	bd1	bd1	bd1	1.6
21	1.51	0.31	bd1	bd1	bd1	1.4
22	bd1	bd1	bd1	bd1	bd1	0.7
23	bd1	bd1	bd1	bd1	bd1	2.8
24	bd1	bd1	bd1	bd1	bd1	bd1
25	2.08	0.64	bd1	0.15	0.44	1.2
26	5.76	0.88	bd1	0.22	0.97	1.5
27	5.37	1.17	bd1	0.20	0.87	8.7
8	4.50	0.76	bd1	0.46	0.57	1.7
29	2.36	0.40	bd1	0.26	0.34	bd1
30	1.61	0.32	bd1	0.36	bd1	bd1
31	4.58	0.42	bd1	bd1	0.39	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	31
A. MEAN	1.98	0.37	-	-	-	1.3
S.D.	2.21	0.45	-	-	-	1.9
MIN.	bd1	bd1	-	-	-	bd1
MAX.	7.95	1.42	-	-	-	8.7

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

														ION BAL.	
AMOUNT		pH												RATIO	PRECIP
DAY	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	TYPE
1	8.6	8.1	-	4.80	1.2	bd1	bd1	0.10	0.021	0.02	0.15	0.12	0.020	-	1
4	2.6	2.3	-	5.00	1.2	bd1	1.0	0.12	0.014	0.05	0.54	0.11	-	-	1
5	10.6	9.4	-	5.20	0.4	0.177	0.5	0.03	0.063	0.02	0.21	0.04	0.012	0.88	1
12	13.4	-	-	-	-	-	-	-	-	-	-	-	-	-	1
13	7.0	7.2	-	4.90	0.8	bd1	1.2	0.06	0.017	0.07	0.61	0.06	0.019	-	1
16	16.4	14.0	-	4.70	0.9	0.310	0.6	0.08	0.023	0.03	0.18	0.03	0.015	0.89	1
18	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	1
22	16.6	16.9	-	4.80	0.9	0.133	bd1	0.07	0.013	0.02	0.06	0.01	0.003	-	1
23	18.6	16.3	-	5.20	0.5	0.044	bd1	0.07	0.013	0.01	0.05	bd1	0.002	-	1
24	1.4	1.3	-	-	1.0	-	0.8	0.25	-	0.05	0.57	0.19	-	-	1
25	1.3	1.6	-	3.60	14.7	-	1.2	0.99	-	0.19	0.35	0.21	-	-	1
29	4.0	3.6	-	4.50	1.4	0.044	0.8	0.18	0.019	0.06	0.32	0.06	0.011	1.18	1
31	3.6	3.3	-	3.60	10.4	4.205	0.6	0.16	0.977	0.04	0.21	0.07	0.010	1.09	1
TOTAL PRECIP 104.5 84.0															
NO. OBS.	13	11	-	10	11	-	11	11	-	11	11	11	-	-	
A. MEAN	8.0	7.6	-	4.21	3.0	-	0.6	0.19	-	0.05	0.30	0.08	-	-	
STD. DEV.	6.5	5.9	-	4.00	4.8	-	0.5	0.27	-	0.05	0.20	0.07	-	-	
MINIMUM	0.4	1.3	-	3.60	0.4	-	bd1	0.03	-	0.01	0.05	bd1	-	-	
MAXIMUM	18.6	16.9	-	5.20	14.7	-	1.2	0.99	-	0.19	0.61	0.21	-	-	
P.W. MEAN	-	-	-	4.57	1.4	-	0.4	0.10	-	0.03	0.19	0.04	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

JUNE 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	0.81	0.17	bd1	bd1	bd1	2.7
2	0.81	0.15	bd1	bd1	bd1	1.0
3	bd1	bd1	bd1	0.27	bd1	0.5
4	bd1	bd1	bd1	bd1	bd1	0.4
5	1.87	bd1	bd1	bd1	0.36	bd1
6	2.05	0.21	bd1	bd1	0.43	bd1
7	1.43	bd1	bd1	bd1	bd1	bd1
8	bd1	0.27	bd1	bd1	bd1	5.2
9	bd1	0.18	bd1	bd1	bd1	bd1
10	bd1	bd1	bd1	bd1	bd1	1.5
11	bd1	bd1	bd1	bd1	bd1	0.7
12	bd1	bd1	bd1	bd1	bd1	bd1
13	1.25	bd1	bd1	bd1	bd1	bd1
14	bd1	bd1	bd1	bd1	bd1	bd1
15	bd1	bd1	bd1	bd1	bd1	bd1
16	1.27	bd1	bd1	bd1	bd1	bd1
17	5.53	0.34	bd1	bd1	0.92	bd1
18	bd1	bd1	bd1	bd1	bd1	bd1
19	1.34	bd1	bd1	bd1	bd1	bd1
20	3.47	0.76	bd1	bd1	0.66	2.7
21	bd1	bd1	bd1	bd1	bd1	bd1
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	-	-	-	-	-	-
28	-	-	-	-	-	-
29	-	-	-	-	-	-
30	-	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ gl}^{-1})$

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
3	5.4	5.2	-	3.90	7.2	2.479	bd1	0.21	0.287	0.04	0.19	0.04	0.004	-	1
4	36.6	38.1	-	4.60	1.5	0.310	bd1	0.05	0.045	0.01	0.22	0.02	0.001	-	1
6	12.0	11.1	-	4.30	2.5	1.726	bd1	0.09	0.305	0.02	0.13	0.03	0.002	-	1
9	25.4	25.7	-	4.70	1.7	0.487	bd1	0.03	0.137	bd1	0.16	0.03	0.002	-	1
15	3.0	2.6	-	3.90	7.8	1.771	1.4	0.23	0.071	0.10	0.81	0.13	0.041	-	1
16	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	1
20	32.0	32.6	-	4.80	1.2	0.133	bd1	0.08	bd1	0.03	0.18	0.03	0.005	-	1
21	3.6	3.6	-	3.80	7.8	2.169	bd1	0.11	0.402	0.02	0.10	0.04	0.014	-	1
22 (5)	30.4	-	-	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL PRECIP 118.3 118.9															
NO. OBS.	8	7	-	7	7	7	-	7	7	7	7	7	7	-	
A. MEAN	14.8	17.0	-	4.13	4.2	1.296	-	0.11	0.178	0.03	0.26	0.05	0.010	-	
STD. DEV.	14.4	14.9	-	4.22	3.2	0.962	-	0.08	0.153	0.03	0.25	0.04	0.014	-	
MINIMUM	0.3	2.6	-	3.80	1.2	0.133	-	0.03	bd1	bd1	0.10	0.02	0.001	-	
MAXIMUM	36.6	38.1	-	4.80	7.8	2.479	-	0.23	0.402	0.10	0.81	0.13	0.041	-	
P.W. MEAN			-	4.45	2.2	0.637	-	0.07	0.102	0.02	0.20	0.03	0.004		

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

JULY 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
6	-	-	-	-	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	0.97	0.20	0.23	0.16	bd1	3.1
14	0.65	0.10	bd1	bd1	bd1	bd1
15	0.63	0.15	0.19	bd1	bd1	bd1
16	0.50	0.29	0.19	0.16	bd1	bd1
17	1.36	0.46	0.15	0.13	bd1	bd1
18	3.54	0.89	0.18	0.17	0.46	2.6
19	2.71	0.70	0.14	0.10	bd1	bd1
20	3.00	0.54	bd1	0.11	0.51	bd1
21	6.37	0.43	bd1	0.57	0.74	bd1
22	1.69	0.34	bd1	bd1	bd1	4.8
23	1.04	0.15	bd1	bd1	bd1	5.1
24	1.55	0.29	bd1	bd1	bd1	1.0
25	0.84	0.17	bd1	bd1	bd1	bd1
26	2.00	0.56	0.44	0.37	bd1	bd1
27	1.27	0.18	bd1	0.30	bd1	bd1
28	0.36	0.16	bd1	0.16	bd1	bd1
29	0.36	0.17	bd1	0.30	bd1	bd1
30	1.58	0.20	bd1	0.21	bd1	bd1
31	0.75	0.23	bd1	0.25	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH		SO ₄ ⁻	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB											
1	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	1
5	35.8	35.5	-	5.10	0.8	0.133	bd1	0.03	0.009	bd1	0.12	0.02	0.004	-	1
8	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	1
9	4.1	3.6	-	4.00	5.1	2.125	bd1	0.20	0.824	0.05	0.12	0.06	0.003	-	1
13	4.4	4.6	-	4.20	2.9	1.726	0.6	0.11	0.164	0.05	0.33	0.03	0.005	0.92	1
14	3.2	3.3	-	4.90	1.0	0.133	bd1	0.14	bd1	0.03	0.16	bd1	0.008	-	1
20	8.8	8.5	-	4.40	1.6	1.018	bd1	0.02	0.148	bd1	0.08	bd1	0.001	-	1
21	51.4	53.7	-	4.40	1.5	1.018	bd1	0.02	0.148	bd1	0.14	bd1	0.001	-	1
27	11.2	9.8	-	4.70	0.7	0.797	bd1	0.02	0.064	0.02	0.18	0.01	0.002	-	1
28	13.0	13.0	-	5.20	0.6	0.177	bd1	0.03	bd1	bd1	0.02	bd1	0.003	-	1
29	2.4	2.0	-	5.00	1.2	-	bd1	0.15	-	0.02	0.11	0.04	0.008	-	1
30	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL PRECIP 137.9 134.0															
NO. OBS.	12	9	-	9	9	-	-	9	-	-	9	-	9	-	
A. MEAN	11.5	14.9	-	4.48	1.7	-	-	0.08	-	-	0.14	-	0.004	-	
STD. DEV.	15.9	17.8	-	4.50	1.4	-	-	0.07	-	-	0.09	-	0.003	-	
MINIMUM	1.0	2.0	-	4.00	0.6	-	-	0.02	-	-	0.02	-	0.001	-	
MAXIMUM	51.4	53.7	-	5.20	5.1	-	-	0.20	-	-	0.33	-	0.008	-	
P.W. MEAN			-	4.56	1.3	-	-	0.04	-	-	0.13	-	0.003	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

KEJIMKUJIK

AUGUST 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS	
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2	
1	3.14	1.34	bd1	0.30	0.72	0.9	
2	5.45	1.72	bd1	0.44	1.23	1.9	
3	3.67	1.07	bd1	0.16	0.58	3.6	
4	8.19	0.96	bd1	0.17	0.86	1.6	
5	12.09	1.33	bd1	0.19	1.01	3.6	
6	3.02	0.19	bd1	bd1	bd1	2.8	
7	2.53	0.27	bd1	bd1	bd1	bd1	
8	1.23	0.22	bd1	bd1	bd1	bd1	
9	0.95	0.37	bd1	0.12	bd1	bd1	
10	2.66	0.35	bd1	bd1	bd1	bd1	
11	8.23	0.38	bd1	bd1	0.79	bd1	
12	7.80	0.50	bd1	bd1	0.82	bd1	
13	3.73	0.55	bd1	bd1	0.63	1.4	
14	1.26	0.48	bd1	bd1	bd1	bd1	
15	3.54	1.42	bd1	0.38	bd1	bd1	
16	8.76	1.43	bd1	0.36	bd1	bd1	
17	2.70	0.86	0.72	0.57	bd1	3.4	
18	1.71	bd1	bd1	bd1	bd1	bd1	
19	0.60	0.18	bd1	bd1	bd1	2.7	
20	0.68	0.18	0.33	0.25	bd1	2.4	
21	0.89	0.34	0.18	0.19	bd1	bd1	
22	2.06	0.43	bd1	0.12	bd1	bd1	
23	1.42	0.55	0.72	0.59	bd1	bd1	
24	2.18	0.52	0.76	0.55	bd1	2.0	
25	0.35	0.19	1.30	0.71	bd1	bd1	
26	0.61	0.30	0.16	0.15	bd1	bd1	
27	5.89	1.01	0.13	0.43	0.67	1.2	
28	1.07	0.18	bd1	bd1	bd1	1.4	
29	1.61	0.34	bd1	bd1	bd1	bd1	
30	1.69	0.28	bd1	bd1	bd1	bd1	
31	1.15	0.38	0.17	0.16	bd1	bd1	

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	31	-	-
A. MEAN	3.25	0.59	-	0.19	-	-
S.D.	2.96	0.46	-	0.22	-	-
MIN.	0.35	bd1	-	bd1	-	-
MAX.	12.09	1.72	-	0.71	-	-

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		pH										ION BAL.		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
5	16.4	16.6	-	4.40	2.1	0.443	bd1	0.03	bd1	bd1	0.04	bd1	0.002	-	1
6	11.8	11.4	-	4.40	1.9	0.885	bd1	0.02	0.140	0.02	0.25	0.02	0.002	-	1
8	8.0	7.5	-	4.70	1.4	0.398	bd1	0.06	bd1	bd1	0.05	0.01	0.003	-	1
12	18.0	14.0	-	4.00	3.8	2.568	bd1	0.05	0.357	bd1	0.07	0.02	0.002	-	1
16	8.6	8.1	-	4.00	4.2	1.859	bd1	0.04	0.372	0.03	0.34	0.03	0.002	-	1
24	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	1
28	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL PRECIP	64.2	57.6													
NO. OBS.	7	5	-	5	5	5	-	5	-	-	5	5	5	-	
A. MEAN	9.2	11.5	-	4.22	2.7	1.231	-	0.04	-	-	0.15	0.02	0.002	-	
STD. DEV.	6.9	3.9	-	4.43	1.2	0.951	-	0.02	-	-	0.14	0.01	0.000	-	
MINIMUM	0.6	7.5	-	4.00	1.4	0.398	-	0.02	-	-	0.04	bd1	0.002	-	
MAXIMUM	18.0	16.6	-	4.70	4.2	2.568	-	0.06	-	-	0.34	0.03	0.003	-	
P.W. MEAN			-	4.20	2.7	1.323	-	0.04	-	-	0.13	0.01	0.002	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

SEPTEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.90	0.25	0.17	bd1	0.59	bd1
2	2.66	0.38	0.15	0.18	0.43	1.1
3	3.00	0.35	0.73	0.54	0.60	2.0
4	1.69	0.67	2.77	1.66	0.61	bd1
5	1.92	0.48	1.58	1.00	0.54	bd1
6	0.63	0.17	0.70	0.40	bd1	bd1
7	1.44	0.36	1.24	0.84	bd1	bd1
8	2.18	0.45	0.53	0.51	bd1	bd1
9	1.15	0.19	0.31	0.22	bd1	bd1
10	0.79	0.24	0.17	bd1	bd1	bd1
11	2.63	0.70	bd1	bd1	0.65	bd1
12	1.83	0.19	bd1	bd1	bd1	2.7
13	0.62	bd1	bd1	bd1	bd1	2.5
14	8.95	2.33	0.33	0.46	1.74	3.8
15	8.58	0.71	0.14	bd1	1.41	1.4
16	2.05	0.13	bd1	bd1	bd1	bd1
17	1.16	0.14	0.12	bd1	bd1	1.1
18	0.92	0.18	0.24	0.17	bd1	bd1
19	1.60	0.45	0.85	0.61	bd1	bd1
20	2.04	0.76	0.83	0.64	0.62	1.4
21	1.74	0.32	0.67	0.41	0.54	0.9
22	0.40	bd1	0.21	0.14	bd1	0.8
23	0.47	bd1	bd1	bd1	bd1	bd1
24	1.02	0.15	bd1	bd1	bd1	bd1
25	0.52	bd1	0.21	bd1	bd1	1.8
26	bd1	bd1	bd1	bd1	bd1	bd1
27	bd1	bd1	0.15	bd1	bd1	1.7
28	3.21	1.03	0.88	0.81	0.79	1.7
29	0.51	bd1	0.83	0.36	bd1	bd1
30	bd1	bd1	0.43	0.22	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	30	30	-	-
A. MEAN	1.85	0.36	0.48	0.31	-	-
S.D.	2.08	0.46	0.59	0.39	-	-
MIN.	bd1	bd1	bd1	bd1	-	-
MAX.	8.95	2.33	2.77	1.66	-	-

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH										ION BAL.		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	RATIO +VE/-VE	
7	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	1
9	8.8	8.5	-	4.00	1.7	0.266	1.6	0.11	bd1	0.12	0.93	0.05	0.003	-	1
10	1.9	1.6	-	4.30	2.6	2.479	0.9	-	0.198	-	-	-	-	-	1
12	12.4	12.1	-	4.10	5.1	1.771	0.3	0.11	0.528	0.04	0.13	0.08	0.060	0.88	1
15	6.0	5.9	-	4.00	7.3	2.833	0.3	0.32	0.831	0.07	0.34	0.10	0.010	0.89	1
16	18.0	21.5	-	4.60	1.1	0.354	0.1	0.08	0.062	0.01	0.12	0.06	0.003	1.25	1
18	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	1
19	2.8	2.6	-	4.60	1.3	-	0.6	0.16	-	0.06	0.45	0.07	0.004	-	1
22	7.6	7.7	-	4.20	2.9	1.284	1.6	0.15	0.283	0.13	1.02	0.07	0.002	1.15	1
23	3.0	2.6	-	4.70	1.2	0.310	0.5	0.20	0.097	0.06	0.42	0.16	0.004	1.38	1
24	27.0	29.6	-	5.00	0.6	0.221	0.2	0.04	bd1	bd1	0.12	0.02	0.002	-	1
28	5.2	4.9	-	3.90	4.8	2.523	0.5	0.10	0.456	0.05	0.50	0.05	0.004	1.19	1
30	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL PRECIP	95.1	97.0													
NO. OBS.	13	10	-	10	10	-	10	-	-	-	-	-	-	-	
A. MEAN	7.3	9.7	-	4.22	2.9	-	0.7	-	-	-	-	-	-	-	
STD. DEV.	7.8	9.1	-	4.40	2.2	-	0.5	-	-	-	-	-	-	-	
MINIMUM	0.4	1.6	-	3.90	0.6	-	0.1	-	-	-	-	-	-	-	
MAXIMUM	27.0	29.6	-	5.00	7.3	-	1.6	-	-	-	-	-	-	-	
P.W. MEAN			-	4.31	2.3	-	0.5	-	-	-	-	-	-	-	

PRECIP TYPE T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

OCTOBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	0.55	0.23	0.95	0.56	bd1	1.4
2	bd1	bd1	bd1	bd1	bd1	bd1
3	bd1	bd1	bd1	bd1	bd1	2.1
4	bd1	0.13	0.19	0.12	bd1	3.2
5	0.78	0.32	0.24	0.21	bd1	1.4
6	1.73	0.53	bd1	bd1	0.58	5.7
7	2.62	0.79	0.52	0.52	bd1	3.6
8	0.66	0.25	0.34	0.20	bd1	4.0
9	34	0.17	0.65	0.38	bd1	1.5
10	0.82	0.38	0.89	0.49	bd1	5.6
11	0.57	0.49	0.71	0.41	bd1	3.7
12	0.46	0.18	0.34	0.23	bd1	bd1
13	1.06	0.18	bd1	bd1	bd1	2.1
14	1.05	0.17	bd1	bd1	bd1	2.0
15	2.00	0.16	0.16	0.15	bd1	bd1
16	2.11	0.37	0.40	0.33	bd1	1.4
17	1.60	bd1	0.34	0.34	bd1	1.6
18	0.76	bd1	0.80	0.61	bd1	1.3
19	1.47	0.31	0.63	0.42	bd1	bd1
20	1.29	0.67	0.69	0.58	bd1	1.9
21	5.70	3.33	2.28	2.60	0.95	5.0
22	3.55	1.18	0.76	0.76	bd1	bd1
23	-	-	-	-	-	-
24	2.32	0.34	0.52	0.42	1.42	2.5
25	3.11	0.47	1.01	0.49	1.31	1.5
26	1.42	0.30	0.58	0.23	1.30	bd1
27	-	-	-	-	-	-
28	0.85	bd1	0.70	bd1	bd1	bd1
29	1.06	bd1	1.81	0.64	1.34	bd1
30	3.14	0.50	0.72	0.54	1.87	bd1
31	-	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	28	28	-	28
A. MEAN	1.47	0.41	0.58	0.40	-	1.8
S.D.	1.27	0.63	0.52	0.49	-	1.8
MIN.	bd1	bd1	bd1	bd1	-	bd1
MAX.	5.70	3.33	2.28	2.60	-	5.7

PRECIPITATION CONCENTRATIONS

(10^{-3} gl^{-1})

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	+VE/-VE	
1	3.4	3.6	-	4.60	2.3	0.044	2.2	0.28	bd1	0.19	1.31	0.04	0.016	-	1
2	15.4	15.0	-	4.40	1.7	0.487	0.1	0.07	0.044	0.03	0.12	bd1	0.002	-	1
6	18.4	18.6	-	4.30	2.9	0.637	0.3	0.06	0.180	0.02	0.08	0.01	0.005	0.86	1
7	10.2	10.1	-	4.30	2.8	0.602	0.3	0.04	0.095	0.02	0.14	0.02	0.001	0.86	1
8	2.0	1.6	-	5.00	2.2	-	1.6	0.19	-	0.10	0.88	0.10	-	-	1
9	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	1
10	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	1
18	3.6	3.6	-	4.50	3.4	1.000	7.4	0.28	bd1	0.50	3.91	0.17	0.014	-	1
19	35.9	35.2	-	5.10	0.8	0.022	0.3	0.02	0.003	0.02	0.11	bd1	0.002	-	1
23	12.0	11.7	-	5.50	1.0	0.013	1.6	0.08	0.003	0.11	0.91	0.04	0.005	0.82	1
24	10.9	10.1	-	5.50	0.5	bd1	0.2	bd1	0.003	0.02	0.07	bd1	0.004	-	1
25	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	1
26	23.0	23.1	-	5.10	0.5	0.066	0.2	bd1	0.003	0.01	0.09	bd1	0.001	-	1
27	17.4	17.3	-	5.70	0.7	0.013	0.2	0.03	bd1	0.01	0.08	bd1	0.005	-	1
28	4.8	4.6	-	5.90	1.1	0.089	0.9	0.05	0.108	0.06	0.67	0.27	0.005	0.96	1
TOTAL PRECIP 159.0 154.5															
NO. OBS.	15	12	-	12	12	11	12	12	11	12	12	-	11	-	
A. MEAN	10.6	12.9	-	4.71	1.7	0.270	1.3	0.09	0.040	0.09	0.70	-	0.005	-	
STD. DEV.	10.1	9.7	-	4.72	1.0	0.349	2.1	0.10	0.061	0.14	1.10	-	0.005	-	
MINIMUM	0.4	1.6	-	4.30	0.5	bd1	0.1	bd1	bd1	0.01	0.07	-	0.001	-	
MAXIMUM	35.9	35.2	-	5.90	3.4	1.000	7.4	0.28	0.180	0.50	3.91	-	0.016	-	
P.W. MEAN			-	4.74	1.3	0.208	0.6	0.05	0.037	0.04	0.30	-	0.004	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

NOVEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	0.91	0.35	0.49	0.20	bd1	bd1
6	0.66	0.11	0.15	bd1	bd1	bd1
7	2.30	0.88	0.35	0.24	bd1	bd1
8	1.50	0.14	0.30	0.13	bd1	bd1
9	1.60	1.47	0.77	0.54	0.40	2.5
10	1.48	0.42	0.27	0.13	bd1	1.2
11	6.87	1.40	0.33	0.28	0.86	2.5
12	0.68	0.14	0.46	0.16	bd1	1.5
13	0.86	0.28	0.35	0.17	bd1	1.6
14	1.85	0.74	1.34	0.77	0.47	2.7
15	0.82	bd1	0.21	bd1	bd1	1.2
16	bd1	bd1	bd1	bd1	bd1	2.0
17	0.75	bd1	bd1	bd1	bd1	4.6
18	1.01	0.15	0.19	bd1	bd1	bd1
19	1.22	bd1	0.39	bd1	bd1	1.5
20	0.48	bd1	bd1	bd1	bd1	bd1
21	3.05	1.58	1.44	0.97	0.54	4.9
22	1.27	0.28	0.71	0.42	bd1	bd1
23	1.41	0.25	0.43	0.14	bd1	1.6
24	1.19	0.28	bd1	bd1	bd1	1.7
25	1.24	0.13	0.20	bd1	bd1	0.9
26	0.99	bd1	0.76	0.32	bd1	bd1
27	1.69	0.32	0.27	bd1	bd1	bd1
28	1.84	0.19	bd1	bd1	bd1	bd1
29	1.08	bd1	0.31	bd1	bd1	1.1
30	1.12	0.15	0.55	0.24	bd1	1.8

bd1 - BELOW DETECTION LIMIT

NO. OBS.	26	26	26	26	-	26
A. MEAN	1.46	0.36	0.39	0.18	-	1.3
S.D.	1.26	0.47	0.37	0.25	-	1.4
MIN.	bd1	bd1	bd1	bd1	-	bd1
MAX.	6.87	1.58	1.44	0.97	-	4.9

PRECIPITATION CONCENTRATIONS

 $(10^{-3} \text{ g l}^{-1})$

DAY	AMOUNT		PH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	+VE/-VE	
6	29.9	30.0	-	4.50	1.8	0.390	0.4	0.02	0.053	0.04	0.29	0.02	0.002	0.93	1
7	1.8	1.3	-	4.50	4.0	-	1.7	-	-	-	-	-	-	-	1
8	1.4	1.3	-	4.90	2.7	-	3.8	-	-	-	-	-	-	-	1
11	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	1
14	1.6	1.6	-	7.00	3.2	-	2.4	0.95	-	0.27	1.50	0.18	-	-	1
15	22.0	24.8	-	5.10	0.7	0.044	bd1	0.08	bd1	0.02	0.15	0.03	0.004	-	1
16	26.8	27.4	-	7.40	0.4	0.058	bd1	0.07	bd1	0.02	0.16	0.03	0.002	-	1
17	17.6	20.2	-	4.70	0.9	0.239	0.8	0.07	0.006	0.04	0.81	0.03	0.002	1.39	1
18	5.8	5.7	-	4.20	1.9	1.744	2.2	0.09	0.010	0.14	1.21	0.09	0.003	1.04	1
19	1.0	1.3	-	-	2.9	-	22.2	-	-	-	-	-	-	-	1
20	52.4	54.7	-	4.70	1.1	0.283	0.9	0.06	0.040	0.04	0.54	0.01	0.001	0.98	1
21	1.0	0.8	-	-	-	-	-	-	-	-	-	-	-	-	1
22	1.0	0.8	-	-	-	-	-	-	-	-	-	-	-	-	1
27	1.0	1.3	-	4.10	4.2	-	3.0	-	-	-	-	-	-	-	3
28	2.0	2.9	-	5.80	1.6	1.217	1.6	1.30	0.406	0.19	1.04	0.12	0.017	1.51	2

TOTAL PRECIP	166.1	174.1													
NO. OBS.	15	14	-	11	12	-	12	-	-	-	-	-	-	-	
A. MEAN	11.1	12.4	-	4.61	2.1	-	3.3	-	-	-	-	-	-	-	
STD. DEV.	15.5	16.5	-	4.58	1.3	-	6.1	-	-	-	-	-	-	-	
MINIMUM	0.8	0.8	-	4.10	0.4	-	bd1	-	-	-	-	-	-	-	
MAXIMUM	52.4	54.7	-	7.40	4.2	-	22.2	-	-	-	-	-	-	-	
P.W. MEAN			-	4.73	1.2	-	0.8	-	-	-	-	-	-	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

DECEMBER 1981

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.64	0.13	0.19	bd1	bd1	1.2
2	0.64	0.13	0.18	bd1	bd1	bd1
3	1.27	0.60	0.51	0.27	bd1	0.9
4	2.56	1.53	0.50	0.40	0.62	2.6
5	2.09	0.52	0.13	bd1	0.47	1.4
6	1.26	0.30	3.95	2.46	bd1	bd1
7	0.65	0.16	0.39	0.12	bd1	1.4
8	2.46	0.27	bd1	bd1	0.58	bd1
9	1.23	bd1	bd1	bd1	bd1	bd1
10	0.92	bd1	0.15	bd1	bd1	bd1
11	0.26	bd1	0.79	0.29	bd1	bd1
12	0.59	0.10	0.33	0.18	bd1	bd1
13	0.69	0.14	0.32	0.17	bd1	3.7
14	2.06	0.22	bd1	0.10	0.59	2.8
15	0.63	bd1	bd1	bd1	bd1	bd1
16	1.60	0.45	1.70	1.07	bd1	1.6
17	2.47	0.21	0.91	0.61	0.52	3.7
18	2.74	0.40	0.22	0.28	bd1	2.5
19	3.11	0.64	0.50	0.40	bd1	2.9
20	1.44	0.31	0.49	0.28	bd1	1.3
21	1.48	0.45	0.42	0.26	bd1	1.8
22	2.76	1.17	0.53	0.44	0.56	6.9
23	2.08	0.55	bd1	bd1	0.47	3.6
24	3.07	0.53	0.21	0.21	0.50	1.7
25	2.02	0.67	0.41	0.26	0.63	1.2
26	1.94	0.95	0.30	0.23	0.71	1.2
27	1.22	0.22	bd1	bd1	bd1	2.7
28	0.84	0.15	0.27	0.12	bd1	1.6
29	0.35	bd1	bd1	bd1	bd1	1.3
30	1.47	0.20	0.64	0.22	bd1	6.4
31	1.26	0.28	0.42	0.17	bd1	5.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	31	31	-	31
A. MEAN	1.54	0.36	0.47	0.27	-	1.9
S.D.	0.84	0.35	0.73	0.46	-	1.9
MIN.	0.26	bd1	bd1	bd1	-	bd1
MAX.	3.11	1.53	3.95	2.46	-	6.9

PRECIPITATION CONCENTRATIONS

(10^{-3} g l^{-1})

DAY	AMOUNT		pH										ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)	FIELD	LAB	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	+VE/-VE	
1	8.0	8.5	-	5.70	bd1	0.044	bd1	0.08	0.006	0.01	0.13	0.02	0.005	-	3
2	54.0	52.8	-	5.50	bd1	0.044	bd1	0.05	0.001	0.01	0.18	bd1	0.002	-	1
3	14.2	14.7	-	5.10	bd1	0.089	bd1	0.03	0.006	0.01	0.12	bd1	0.001	-	1
5	16.2	15.6	-	5.40	bd1	0.111	1.3	0.09	0.001	0.11	0.87	0.06	0.005	-	1
6	5.6	4.9	-	5.10	0.6	0.142	6.1	0.18	0.001	0.43	3.60	0.14	0.005	1.13	1
7	5.6	5.5	-	6.40	bd1	0.243	0.5	0.06	0.048	0.06	0.38	0.10	0.059	-	1
8	2.4	2.6	-	4.50	1.8	1.031	0.8	0.17	0.147	0.08	0.72	0.25	0.007	1.20	1
9	5.4	5.9	-	4.50	1.1	0.779	bd1	0.06	0.049	0.03	0.32	0.11	0.001	-	1
10	3.6	3.9	-	4.50	1.4	0.642	bd1	0.04	0.021	0.05	0.31	0.03	0.002	-	1
11	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	1
14	5.5	6.2	-	5.00	0.7	0.270	bd1	0.02	0.039	0.01	0.12	0.02	0.001	-	2
15	47.6	47.2	-	5.30	0.5	0.062	bd1	0.02	0.003	0.02	0.27	0.01	bd1	-	1
16	5.0	5.9	-	4.30	3.5	1.306	16.0	0.43	0.048	1.10	10.07	0.84	0.004	1.14	1
18	12.6	12.4	-	4.70	1.3	0.514	bd1	-	0.052	-	0.28	0.03	0.007	-	2
19	2.0	2.6	-	4.30	3.1	-	9.8	0.31	-	0.63	5.78	0.29	0.004	-	2
20	0.7	1.3	-	6.70	2.4	-	9.8	-	-	-	-	-	-	-	2
22	5.8	5.9	-	4.80	0.5	0.611	1.6	0.10	0.052	0.16	1.13	0.08	0.004	1.34	3
23	19.6	18.2	-	4.60	0.6	0.717	bd1	0.08	0.048	0.02	0.17	0.04	0.005	-	3
24	1.6	1.0	-	5.20	0.8	-	2.2	-	-	-	-	-	-	-	2
27	15.8	21.2	-	5.30	bd1	0.252	bd1	0.07	0.019	0.02	0.10	0.02	0.002	-	2
28	2.0	2.9	-	5.00	0.5	0.815	0.5	0.21	0.024	0.09	0.57	0.03	0.008	1.44	3
29	11.6	11.4	-	5.60	0.4	0.124	bd1	0.07	0.206	0.03	0.25	0.04	0.003	-	3
30	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	3
TOTAL PRECIP 245.8 250.6															
NO. OBS.	23	21	-	21	21	18	-	18	18	18	19	19	19	-	
A. MEAN	10.7	11.9	-	4.82	0.9	0.433	-	0.12	0.043	0.16	1.34	0.11	0.007	-	
STD. DEV.	13.9	13.9	-	4.81	1.0	0.382	-	0.11	0.054	0.29	2.55	0.19	0.013	-	
MINIMUM	0.4	1.0	-	4.30	bd1	0.044	-	0.02	0.001	0.01	0.10	bd1	bd1	-	
MAXIMUM	54.0	52.8	-	6.70	3.5	1.306	-	0.43	0.206	1.10	10.07	0.84	0.059	-	
P.W. MEAN			-	5.01	0.4	0.245	-	0.07	0.027	0.07	0.61	0.05	0.004	-	

PRECIP TYPE

T - TRACE AMOUNT

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

APPENDIX 7

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS IN AIR AND PRECIPITATION AT TORONTO

JULY 1980

AIR CONCENTRATIONS (10^{-6}gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	8.16	4.50	bd1	bd1	3.66	22.6
2	4.20	3.16	bd1	bd1	2.30	5.4
3	6.11	4.73	bd1	bd1	2.24	51.2
4	8.44	5.89	bd1	bd1	4.63	34.7
5	8.44	4.35	bd1	bd1	3.65	19.8
6	.66	2.91	.24	bd1	1.58	5.5
7	5.79	3.73	.24	bd1	2.75	93.1
8	7.29	3.30	.30	bd1	2.76	13.0
9	1.62	3.94	.38	bd1	1.99	4.5
10	8.77	6.49	.40	bd1	6.31	32.7
11	1.69	4.90	.49	bd1	2.07	3.5
12	1.31	2.16	.42	bd1	1.57	4.7
13	1.92	3.79	.34	bd1	1.88	10.2
14	6.58	4.51	.33	bd1	3.71	86.3
15	12.28	4.30	.44	bd1	6.64	31.6
16	5.39	6.58	.60	bd1	3.66	35.8
17	6.55	3.58	.36	bd1	2.62	8.1
18	8.50	4.03	.35	bd1	2.93	44.9
19	18.82	5.54	bd1	bd1	7.72	46.7
20	16.14	6.06	bd1	bd1	6.92	61.4
21	7.71	6.32	.37	bd1	4.36	10.3
22	7.47	2.41	bd1	bd1	2.86	47.2
23	2.37	3.31	bd1	bd1	1.75	4.9
24	3.41	4.34	.31	bd1	2.18	39.4
25	8.52	6.03	.47	.10	5.25	29.4
26	12.54	5.36	.72	.10	6.25	41.2
27	26.19	1.25	1.67	.96	7.73	49.9
28	7.89	1.82	bd1	bd1	2.33	18.2
29	10.76	3.82	.86	.27	5.02	20.8
30	.92	3.82	bd1	bd1	1.49	2.1
31	8.84	3.39	bd1	bd1	4.92	38.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	31	-	31	31
A. MEAN	7.59	4.20	.30	-	3.76	29.6
S.D.	5.51	1.38	.35	-	1.90	23.6
MIN.	.66	1.25	bd1	-	1.49	2.1
MAX.	26.19	6.58	1.67	-	7.73	93.1

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

TORONTO

AUGUST 1980

AIR CONCENTRATIONS (10^{-6}gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	15.12	4.73	.98	bd1	8.37	14.7
2	3.48	4.40	.37	bd1	2.17	7.8
3	3.15	3.71	bd1	bd1	2.95	7.9
4	4.04	3.49	bd1	bd1	3.10	11.8
5	13.88	2.34	bd1	bd1	6.22	93.9
6	5.91	6.42	.51	bd1	4.92	28.5
7	8.95	5.29	.59	bd1	-	59.2
8	4.53	5.60	1.00	.10	3.61	19.4
9	1.93	4.05	.52	bd1	2.56	6.1
10	2.48	3.74	1.05	bd1	2.76	21.8
11	3.74	3.28	.65	bd1	2.90	124.3
12	7.74	2.06	.44	bd1	3.34	14.8
13	5.94	3.83	.57	bd1	-	41.8
14	5.81	3.48	.61	bd1	2.68	22.0
15	3.51	2.36	.38	bd1	1.90	16.1
16	.45	2.65	.46	bd1	1.03	1.7
17	1.18	3.06	.37	bd1	1.28	12.3
18	12.53	3.12	bd1	bd1	4.77	55.7
19	2.51	2.62	.40	bd1	1.40	2.5
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	-	-	-	-	-	-
28	-	-	-	-	-	-
29	-	-	-	-	-	-
30	-	-	-	-	-	-
31	-	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

* BLANK IS GREATER THAN 2 STANDARD DEVIATIONS ABOVE MEAN

*Three Dark Figures
Making the Weather
In Folk, in Myth, in Legend,
A threefold test.
Shiva, Vishnu, Brahmin.
Father, Son, Holy Ghost.
Body, Mind, Spirit.
Triune, Triumvirate, Tribunal.
One is Isolate
Two is divisive
Three is Peace.
Three is Torment.
Three is Potent.
Power, Power, Power.
Air, Fire, Water.
Three Dark Figures,
Making the Weather.*

Ron Baird, Sculptor